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GENTLEMEN: The American Medical Association has reached an age when the thoughts of one whose retrospections extend to its birth naturally revert to the natal period of its existence. Of those who coöperated in the formation of the Association, not many now remain, and after a few more annual meetings all will have passed away.

Thirty-eight years ago, a medical convention was held in the city of New York, in compliance with a recommendation by the Medical Society of the State of New York in 1845. In 1839, the Medical Society of the State of New York adopted a resolution recommending a national convention to be held in Philadelphia in 1840. This action of the Society was without effect. In connection with the recommendatory resolution adopted in 1845, a committee of three was appointed to carry the resolution into effect, and the mover of the resolution, Dr. N. S. Davis, was made chairman of that committee. Thanks to his zeal and energy, at the time and place designated by the Medical Society of the State of New York, the convention was held, and attended by about one hundred delegates, representing medical colleges and societies in sixteen States of the Union. I can bear testimony, from personal recollection, to the enthusiasm which characterized that convention. The convention resolved that it was expedient to form a national medical association, and a committee of seven was appointed to report a plan of organization at a second convention, to be held in Philadelphia, in May, 1847. A committee of seven was appointed to report, at the same time and place, a uniform and elevated standard of requirements for the degree of M.D.; another committee of seven was appointed to report on a suitable preliminary education for the study of medicine; and a committee of seven was appointed to report a code of medical ethics.

At the convention held in Philadelphia in May, 1847, there were present two hundred and fifty delegates—forty medical societies, twenty-eight medical colleges, twenty-two States of the Union, and the District of Columbia being represented. I can testify to an enthusiasm even greater than at the first convention. Resolutions reported by the several committees appointed at the New York convention were adopted. These resolutions embraced a plan of organization, a constitution, and by-laws, together with the now existing code of medical ethics, and the convention was merged into the American Medical Association. Thus, the birth of the Association was in 1847, and it therefore now enters upon the thirty-eighth year of its existence.[1]

What motives led to the formation of the Association? First, and most prominent, was a desire to promote improvements in medical instruction, and to advance the standard of professional acquirements. These were the aims stated in the call for the first convention. A more comprehensive statement was expressed in the first of a series of resolutions prepared by Alfred Stillé, and offered by Isaac Hays, as follows: "It is expedient for the Medical Profession of the United States to institute a National Medical Association, for the protection of their interests, for the maintenance of their honor and respectability, for the advancement of their knowledge, and the extension of their usefulness." It had become evident that for the ends expressed in this resolution the profession in this country must rely mainly on itself. Little was to be expected from State Legislatures. These bodies then, as now, were indisposed to legislate in behalf of medical education, except to charter new colleges; they were even reluctant to legalize dissections; they had not then, nor have they since the formation of the Association, recognized the promotion and diffusion of medical knowledge as legitimate objects for ample appropriations of public funds. As a rule, so far as legalized protection, sanction, and encouragement go, they have been not less considerate of irregular than of regular medical practice; and, indeed, the terms regular and irregular denote a purely professional, not a legal, distinction. The State of New York, at the time of the first convention, had, virtually, admitted the right of any one to practise medicine; in few, if any, of the States of the Union were there legal restrictions, and in some there were no laws whatever relating to medical practitioners. Nor was much to be expected then, as now, from individuals outside of the profession. Liberality, philanthropy, and public spirit had not, and as yet have not, except in rare instances, taken a direction towards medical instruction and the advancement of medical knowledge. A conviction of the necessity for self-reliance, and a deep sense of the importance of the ends set forth in the resolution which I have quoted—these were the mainsprings in the movement which resulted in the organization of the American Medical Association. The need for uniting in council members of the profession from all parts of the country was widely felt. The feeling was catholic, not sectional. The ends had reference, not to a single State, but to the United States. When Davis introduced his resolutions at the meeting of the Medical Society of the State of New York, in 1845, the "fulness of the time had come." and, in the providential order of human

[1] The annual meetings were suspended from 1860 to 1863, that is, for the years 1861 and 1862. The suspension of the meetings for these two years was owing to the civil war. It is worthy of note that the Medical Society of the State of New York, in February, 1863, adopted unanimously a resolution in favor of resuming the regular annual meetings of the Association.

events, the American Medical Association came into existence. Its development and growth were rapid. It has now passed through a healthful adolescence into a mature age. It has outlived, and profited by, the errors and imperfections incident to youth. We have before us to-day the proof that it is replete with vitality and vigor.

I have not indulged in these reminiscences of the origin of the Association with an intention to review its subsequent history. As furnishing appropriate topics for my discourse on this occasion, I take for my text the preamble to the plan of organization adopted at the formation of the Association. This preamble is as follows:

"Whereas, the medical convention held in the City of New York in May, 1846, have declared it expedient for the medical profession of the United States to institute a National Medical Association, and inasmuch as an institution so conducted as to give frequent united and emphatic expression to the views and aims of the medical profession in this country, must at all times have a beneficial influence, and supply more efficient means than have hitherto been available here for cultivating and advancing medical knowledge; for elevating the standard of medical education; for promoting the usefulness, honor, and interests of the medical profession; for enlightening and directing public opinion in regard to the duties, responsibilities, and requirements of medical men; for exciting and encouraging emulation and concert of action in the profession, and for facilitating and fostering friendly intercourse between those who are engaged in it; therefore, be it resolved, in behalf of the medical profession of the United States, that the members of the Medical Convention held in Philadelphia in May, 1847, and all others who, in pursuit of the objects above mentioned, are to unite with, or succeed them, constitute a National Medical Association."

The objects of the Association are here clearly and tersely set forth. My remarks will have reference to these objects. The topics which in connection therewith suggest themselves, are so many and large that, with a due regard to the length of my discourse, not a few must be omitted, and none can be fully considered.

The terms "cultivating and advancing medical knowledge," by which the first object is expressed in the preamble, imply that medicine is progressive. No one of those whom I address will deny the assertion that medicine is now progressing, as it has progressed in the past, and that it will continue to progress in the future. I do not doubt that the present stage of its progress will hereafter be cited as an important epoch in its history. For the past quarter of a century, histological and clinical studies have tended to develop more and more our knowledge of the existence of specific agents in the causation of diseases. That, as regards certain diseases, these specific agents are microörganisms, has been demonstrated. The latest discovery in this direction is that of the bacillus tuberculosis, a discovery which is the leading topic in medical literature at the present time. Recent trustworthy researches go far toward demonstrating the existence of specific organisms in pneumonia, typhoid fever, malarial fever, and epidemic cholera; and, reasoning by analogy, it is a logical conclusion that ere long a host of diseases will be proven to be parasitic. It is easy to perceive how important must be the bearings of these developments in etiology and pathology on prophylaxis and therapeutics.

A new era is about to be inaugurated in these practical departments of medicine. Prof. Huxley, in his address at the International Medical Congress in 1881, uttered a prediction in these words: "It will become possible to introduce into the economy a molecular mechanism which, like a very cunningly contrived torpedo, shall find its way to some particular group of living elements and cause an explosion among them, leaving the rest untouched." I would rather say that the time will come when means will be found to destroy morbific agents outside of the body, thereby securing the prevention of diseases; and that means will be found to effect the destruction of these agents within the body, thereby arresting the course of diseases. Let us hope that the medical profession in this country will take an honorable part in labors for the cultivation and advancement of medical knowledge with reference to these most desirable results! At all events, let us continue to recognize and apply medical knowledge wherever it may originate!

"For elevating the standard of medical education;" these terms express the second of the objects enumerated in the preamble. At the first convention, held in 1846, a committee was appointed to report on "a uniform and elevated standard of requirements for the degree of M.D., to be adopted by all the medical schools in the United States." Another committee at the same convention was appointed to report on the "standard of acquirements which should be expected of young men before being received as students of medicine." These committees, at the second convention, in 1847, submitted reports which were adopted. Now, it has been charged upon the Association that its recommendations in regard to medical education have been nugatory. If, however, the recommendations embraced in these reports be referred to, it will be seen that there is less room for reproach than some may have supposed.

The committee on the requirements for the degree of M.D. reported, in substance, as follows: That the college terms be extended from four to six months; that candidates for the degree of M.D. shall have attended two full courses of lectures before graduation; that three years should be devoted to the study of medicine; that a certificate of pupilage by a preceptor who is avowedly and notoriously an irregular practitioner should not be accepted; that the number of professors in medical schools be increased to seven; that candidates shall have devoted three months to dissections; that preceptors should avail themselves of every opportunity to impart clinical instruction to their pupils.

It would be absurd for the Association to renew these recommendations at the present time. The progressive advancement in medical instruction in most of our colleges has long since gone far beyond them. It is not to be doubted that the Association exerted not an inconsiderable influence in the progress which has been made in medical instruction. That there is room for further advancement, no one will deny, and it is certain that it will continue in the future as in the past, albeit not, perhaps, with a celerity to satisfy those who seem to derive gratification from the disparagement of medical education in this country. Improvements which, al-

though steadily progressing, are to be promoted, relate to a closer union of didactic with clinical teaching, and especially to practical exercises in the investigation of cases of disease; to increased demonstrative instruction in special branches of medicine, such as histology, the microscopical and chemical examinations of morbid products, together with the fluids of the body in health as well as in disease, the physical exploration of the lungs, heart, and other organs, etc.; to a larger allowance of time in connection with oral teaching for recitations; to the substitution of recitations, to a greater or less extent, for didactic lectures in certain departments, and to an extension of the period of medical pupilage.

The educational advantages, exclusive of those relating to college sessions, although vastly better now than heretofore, may be much extended and made more available than at present. The pupils who, between college sessions, study in the offices of medical practitioners in the country, reading such books as they find in the meagre, and perhaps antiquated libraries of their preceptors, accompanying the latter in their "rides," preparing medicines and making themselves generally useful, may undoubtedly pick up many facts and ideas which will become useful in after-life, but it hardly requires argument to show that systematic private instruction is much to be preferred. Moreover, methodical reading and recitations are essential, not only for the information thereby obtained, but in order that the pupil may acquire, if it have not been already acquired, what may be called the art of study. There are those who, having obtained their medical education chiefly from oral teaching and demonstrations, cannot apply the mind to study by means of books, although not indifferent to the knowledge to be thus obtained, for the simple reason that they lack the ability to be acquired only by practical training.

At the present time the most important of the means for elevating the standard of medical education relate to the preliminary requisites for the study of medicine. The committee appointed in 1846 to report on this subject, recommended that members of the medical profession throughout the United States should satisfy themselves before receiving young men as students, that they have acquired "a good education, a knowledge of natural philosophy, and the elementary mathematical sciences, including geometry and algebra, and such an acquaintance, at least, with the Latin and Greek languages as will enable them to appreciate the technical language of medicine, and read and write prescriptions." It was also recommended that the medical colleges require a certificate of such an amount of preliminary acquirements before matriculation.

These requisites are, assuredly, neither in number nor degree, unreasonable. The need of any knowledge of the dead languages has been doubted, but when it is considered that the names of all the organs and tissues in the body, and the nomenclature of diseases, together with the terms used in physiology, chemistry, materia medica, pharmacy, surgery, and obstetrics, are of either Greek or Latin derivation, it is difficult to understand how the student can dispense altogether with this knowledge. The want of it must, to say the least, be a great drawback. A thorough acquaintance with these languages, philologically, or with reference to the appreciation of the literature of Greece and Rome, however elegant as an accomplishment, is by no means essential as preparatory for the study of medicine, and it may fairly be questioned whether the time usually spent in the study of the Greek and Latin authors by those who graduate in arts at our colleges, might not be given with much more profit to physics, chemistry, and the French and German languages. To the requisites recommended by the Association, might be added, with advantage, knowledge of the elements of chemistry, leaving only the practical application of this science in the different departments of medicine to be taught in our medical schools.

It must be confessed that the progress in the matter of the preliminary education of medical students, is less satisfactory than that in medical instruction. Not a few medical students are deficient in the knowledge and the mental training requisite as preparatory for the study of medicine. The fault, exclusive of the students themselves, lies in part with the medical schools, and partly with private preceptors—more with the latter, inasmuch as to them generally applications are first made to enter upon the study. I have no wish to be an apologist for either; there is blame on both sides, and there should be mutual coöperation in an effort to remove the greatest of the present obstacles in the way of elevating the standard of medical education.

The practical question is, what can the Association do to promote more and more the elevation of the standard of medical education? I will meet this question, in the first place, by suggesting what it is desirable should not be done.

It is not judicious to decry medical instruction in this country as unworthy of any commendation, and as contemptible when contrasted with the educational advantages of other countries. The low estimate in which medical education in America appears to e held by some of our writers, is not only discouraging, but it is without any warrant from facts. Our methods of teaching have certain notable advantages above those of other countries; and in respect of effectiveness in practical branches, we have no occasion to be ashamed if comparisons be fairly made.

It is alike impolitic and unjust to depreciate, as is sometimes done in offensive terms, the medical profession of the United States. As a body, the members of our profession in this country are neither ignorant nor in any respect unworthy. The profession is honorable and honored. In no other country is the social status of its members higher. If a distinction be not always drawn, in public estimation, between true merit and either pretentious ignorance or fraudulent assumption, this is an evil by no means confined to our country; it is incident to the peculiar character of medical knowledge and to human credulity. Granting the need of a better average of professional acquirements, it is not to be effected by abuse of the profession as a whole.

Sweeping charges against medical schools of venality and deception, are not less unwise than unbecoming. As regards their maintenance, the condition of the medical schools in this country, when compared with those of other countries, is anomalous. For the most part they are unendowed, and, therefore, must be self-sustaining. If they cannot offer adequate inducements for patronage, they cannot exist. This condition has its advantages, but also its drawbacks. There is but little

ground for the accusation of resorting to dishonorable methods to secure patronage. I may venture to assume some degree of competency to speak with confidence in regard to this matter, it having fallen to my lot to have been connected with several medical colleges, and I aver my belief that the endeavor to entice students by an expectation of easy graduation, or by any other disreputable inducements, must be rare exceptions to the rule. Granting that there are exceptions, and that some colleges may be guilty of flagrant abuses of their chartered rights, is it not more just, and in all respects better, to pursue measures for the extinction of their rights, or for rendering their degrees nugatory, than to make the evil doings of a few, the ground for indiscriminate abuse, embracing colleges which are striving to do their duty to their pupils, to the medical profession, and to the public?

It is injurious and an injustice to assert, as is often done, that a large proportion of those pursuing the study of medicine in this country are governed by a desire to gain admission to the profession as quickly, as cheaply, and with as little medical knowledge as will suffice for that object. Here it may not be too presuming in me to speak with some authority, having, as a teacher for forty years, been brought into relations with many thousand medical students, from the northern, southern, eastern, and western States of the Union. As a class, they will compare favorably with those preparing for the sister professions, or for any of the callings of life. A large proportion evince a degree of diligence and perseverance not excelled, as I believe, in any other country. I rejoice in the present opportunity to bear this testimony, based on personal knowledge, in behalf of the much and undeservedly abused American medical students.

Elevation of the standard of medical education is not to be promoted by means such as have just been adverted to. Vituperation does not supply motives for improvement. Reforms are not favored by obloquy. He who is content to do battle with the sword of ridicule has not the spirit of a true reformer. I have no disposition to deny or to take the attitude of an apologist for defects and abuses which affect, directly or indirectly, the standard of medical education. Some of the evils most complained of might be obviated by the united action of the members of the medical profession. Much is said respecting the overcrowding of the profession by the large number of annual graduates, and this evil is attributed to the number of medical colleges. Assuming, for the nonce, the fact together with the explanation, and that the evils overbalance the advantages of an active competition among the colleges, how is the number of these to be reduced? Reliance on State legislation would be delusive. Legislators are not likely to take away charters which have been granted, and they will probably continue to be complaisant enough to grant new charters to persistent applicants. But suppose all private perceptors were to induce their pupils not to connect themselves with colleges which are either misplaced or deficient in the means of instruction; a certain number would cease to exist, and the result would exemplify the Darwinian doctrine of the "survival of the fittest."

Again, suppose private perceptors throughout the United States were to unite in declining either to receive as pupils or to advise entering on the study of medicine all who lack the proper requirements; the evil of the deficiency in preliminary education would be at once removed.

I revert to the question, "What can our Association do to promote more and more the elevation of the standard of medical education?" It is to be borne in mind that, exclusive of the motives for personal improvement which appeal to its members individually, the profession must rely upon itself for whatever is to be done. The American Medical Association represents the profession of the whole country. Hitherto the Association has been content with reports, addresses, and communications pointing out existing defects in medical education, and recommending changes and improvements, the immediate adoption of some of which was impracticable. Too often a predominant spirit of animadversion has been apparent. Let a course be pursued which is more active and practical, with reference to measures for progress. Let certain measures be proposed for immediate adoption, which are within the limits of practicability. Let these measures receive the sanction and support of local Associations in the different States of the Union. Let the National Association take the initial steps, and solicit conferences with and the cooperation of State Associations and the leading medical colleges throughout the country, with a view to agreement respecting the proposed definite measures. Let these steps be taken in a kindly spirit with an earnest desire to harmonize different views and interests, in order that there may be united action as regards improvements agreed upon. In this way, as we may hope, uniformity in the different States will be secured in behalf of the second of the objects for which our Association was instituted. There can be but little difference of opinion as to the improvements in medical education which it is desirable should be effected; the opposing difficulties are chiefly those which interfere with uniformity throughout the United States. I venture to suggest the appointment of a standing committee on medical education with a view especially, by means of communications with State associations and colleges, to secure uniform action with reference to requirements for matriculation and for graduation. My purpose in the suggestion of such a committee, is not to obtain reiterated resolutions setting forth what ought to be done, but reports at the next meeting, and at subsequent meetings of the Association, of what has been actually accomplished. It is not to be expected that all desirable improvements will be at once effected. Considering the greater relative importance of preliminary requisites for the study of medicine, were these made the first objective point in the action of the committee with a satisfactory result, a very important advance would be made, and this would be likely to prove an earnest success in effecting other improvements.

A plan for the elevation of the standard of medical education, which has been recommended by the Association, consists in making the degree of M.D. purely an honorary distinction, not rendering the graduate thereby legally qualified to practise, this qualification to be derived from a licensing board, composed of examiners not engaged in medical teaching. Of this plan, I forego discussion, for the reason that it would exclude the consideration of topics which seem to me more im-

portant. With no disposition to undervalue its recommendations, I will simply remark that, aside from certain intrinsic objectionable features, it is open to objection on the ground of the impracticability of securing uniformity in the different States of the Union, and because it contravenes the principle of self-reliance in matters relating to our profession.

In the language of the preamble, the third object of our Association is "for promoting the usefulness, honor, and interests of the medical profession." I shall confine my remarks on this object to a topic which is, perhaps, at the present time, the most important bearing upon it. I refer to medical ethics. I need not undertake to represent to this audience how manifold, delicate, and peculiar are the professional duties and relations of the medical practitioner. There is no other calling in which so much depends on the conscientiousness and uprightness of those who practise it. There is no calling in which the temptations and opportunities for deviations from rectitude are so great. In the enumeration of the attributes of the physician by Hippocrates, with "learning and sagacity" were conjoined "humanity and probity."

In order to practise medicine with proper self-respect, the practitioner himself must honor the profession, and in order that medical services shall be properly respected, the profession must be honored in public estimation. The duties incident to medical practice are often of a nature to render them menial and degrading were they not required by a humane and honorable calling. Some one has said with truth that, while medicine is a noble profession, it is the meanest of trades. Imbued with these sentiments, the founders of our Association, at the convention in 1846, resolved, "That it is expedient that the medical profession in the United States should be governed by the same code of medical ethics, and that a committee of seven be appointed to report a code for that purpose." A committee appointed in accordance with this resolution reported a code of ethics at the convention held in Philadelphia in 1847. This code was adopted by the American Medical Association without a dissenting voice. It has remained essentially intact up to the present time, and it has been adopted by medical societies throughout the United States.

It were gratuitous to expatiate on the excellence of this code. It speaks for itself better than any one can speak in its behalf. It has exerted a most salutary influence on the minds of the members of the medical profession in this country. It has promoted love of the profession, and self-respect as members of it, thereby contributing to its usefulness, its honor, and its true interests. I believe that a former President of this Association, Dr. N. S. Davis, uttered a correct statement in saying that in no other country are the principles and rules of medical ethics better observed than by the majority of the members of the profession in the United States.[1] And it is a reasonable conclusion that this is owing in a great measure to the influence of the National Code on the minds of the practitioners of medicine in our country. I concur with the speaker who addressed the Association from this chair in 1882—Dr. Hooper—in the opinion that the American Medical Association, had it done nothing else than to adopt the Code of Ethics, would have been entitled to unending gratitude. I cannot forbear quoting some extracts from the address of a distinguished predecessor, the late Prof. George B. Wood, in 1856: "A great benefit conferred on the profession by the Association was the preparation and adoption of the Code of Ethics. . . . I have no doubt that a full observance of its rules would tend more than any one thing else to maintain harmony in the profession, and to elevate it in the public esteem. . . . I do honestly believe that to a young physician going forth into a life full of moral conflicts, the wearing of this ægis would be one of his surest defences; that, next to the holy Scriptures and the grace of God, it would serve most effectually to guard him from evil."

It is only within a recent period that there have been, anywhere, manifestations of a disposition to change materially our national Code of Ethics, or to do away with any code. In 1882, at the annual meeting of the New York State Medical Society, by a vote of fifty-two of seventy members in attendance at the meeting, a new code was summarily substituted for the code of the American Medical Association. This precipitate and lamentable action has severed the New York State Society from its affiliation with our Association, and has resulted in a division of the members of the profession in the State of New York. That these results may not be permanent must be the fervent wish of all who have at heart the usefulness, honor, and interests of the medical profession.

Some of the recent opponents of our National Code object to it as antiquated, quaint, and containing useless platitudes. These objections do not call for serious refutation. They involve merely a question of taste; and the characteristics which by some are considered as blemishes, have for others a peculiar charm. Admitting that certain of the precepts of the Code are supererogatory, no one can object to them on the ground that they do harm; and if they be acceptable even to a few, wherefore should they be opposed by any?

Other objections are, that the Code has, to a greater or less extent, proved inoperative, and that its rules are not enforced by means of penalties for the non-observance of them. The Code itself contains nothing in regard to penalties, nor do the By-Laws of the Association take cognizance of these except to exclude from representation local societies which have not adopted the Code, or "which have intentionally violated or disregarded any of its articles or clauses." With this exception, the enforcement of ethical rules is left entirely to local societies. The fault, if fault there be, lies at the doors of the latter. But granting the fault to be ever so great and widely extended, is this a valid reason for formally repudiating obligations which are morally binding? Are the principles of morality pertaining to any of the duties of life to be ignored because immorality prevails? Are penal laws to be erased from the statute-book because punishment often does not follow crime? Although few, if any, live up to the Scriptural injunction to "do unto others as you would that they should do unto you," is this quintessence of religious duty to be expunged from Holy Writ? It is the salutary influence on the minds of members of the profession, in which consists the greatest potency of the

[1] Address at the Convention of Medical Editors, 1883.

ethical code for good, and I will go so far as to say that the Code were invaluable were no penalties incurred by violations of it beyond those pertaining to the conscience of offenders.

The portion of the Code which is especially objected to is that relating to consultations with irregular practitioners. The advocates of the New Code, so called, in the State of New York, would permit consultation with all legally qualified practitioners of medicine. The advocates of "No Code" would leave it entirely to individual judgment to decide with whom members of the medical profession should meet in consultation. After quoting the portion of the Code relating to this topic, I will ask your consideration of the views which I shall offer. The following is the article of the Code referred to:

"A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless, as in consultations the good of the patient is the sole object in view, and this is often dependent on personal confidence, no intelligent regular practitioner who has a license to practise from some medical Board of known and acknowledged respectability, recognized by this Association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultation when it is requested by the patient. But no one can be considered as a regular practitioner, or a fit associate in consultation, whose practice is based on an exclusive dogma to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

The excluding clause which is the last sentence, specifies who is not to be considered as a regular practitioner. No one surely will deny that a practitioner such as is specified in that clause, cannot be considered as a regular practitioner. The article does not assume to embrace a comprehensive definition of irregular practitioners. At the time when the Code of Ethics was adopted, the great majority of irregular practitioners were men who not only based their practice on an exclusive dogma, but made no concealment of their rejection of the "aids actually furnished by anatomy, physiology, pathology, and animal chemistry." They made no pretension to knowledge of these branches of medicine, and they scornfully repudiated the "accumulated experience of the profession." The language of the article, which applied well enough to most of the irregular practitioners at that time, is not as applicable to those of a later date. It is not affirmed in the wording of the Code, that holding an exclusive dogma is, in itself, sufficient for a practitioner to be considered as irregular. The language which refers to an exclusive dogma, is to be taken in connection with the remainder of the same sentence. Exclusive dogmas have prevailed, to a greater or less extent, in past time, among members of the regular medical profession. Legitimate medicine places no restrictions on individual opinions; it does not assume to interfere with the utmost freedom in this regard. What is it then, irrespective of a "rejection of the accumulated experience of the profession and the aids actually furnished by anatomy, physiology, pathology, and organic chemistry," which stamps irregular practitioners? Is it not the assumption of a distinctive name, such as homœopathist, eclectic, botanic, etc., voluntarily assumed as an announcement to the public of the adoption of a system of medicine, distinct from, and opposed to the practice of the regular profession, and on this distinction and opposition basing their claims as practitioners?

In order to make my meaning clear, let me illustrate it by examples. Within the recollection of those who have been in the profession for more than half a century, there prevailed simultaneously, for a time, two dogmas quite opposite in character, each having its ardent partisans. I refer to Broussaism and Brownism. Broussais and Brown were men of genius and learning, led astray by specious theories. They were honest in their opinions, and they sought to convince members of the profession, not the public, of the truth of their dogmas. Their partisans were often called Broussaists and Brunonians; but they never assumed these names as sectarian designations. Now, had they assumed these names, making themselves known to the public as practising Broussaism or Brownism, and on this ground basing their claims for practice, they would have been irregular practitioners not entitled to professional fellowship. As it was, they were not without the pale of the regular profession.

As a hypothetical example, *per contra*, suppose a graduate from a medical college of acknowledged respectability, whose professional attainments are sufficient to qualify him for membership of the regular profession, has adopted a sectarian name and allied himself with those who profess antagonism to legitimate medicine. He is, therefore, an irregular practitioner whatever may be the particular tenet which is ostensibly the basis of his practice. Let it be supposed that such a practitioner is desirous of being enrolled in the ranks of the regular profession. I need not say that this profession has no creed, no articles of faith, no traditional doctrines which it imposes as conditions for membership. It enjoins no limitations of private opinions, it matters not how fantastic. In order that such an irregular practitioner as has been represented may enter the regular profession, no relinquishment of honest convictions is essential. In addition to educational and moral qualifications, the renouncement of a sectarian designation, of the hostility to the profession thereby involved, and conformity to the rules of medical ethics, are alone necessary. It is a calumny to say that persons are excluded from the medical profession on account of peculiar views, however irrational, and that conversion and recantation are essential for professional fellowship. The doors are closed to no one who has received a regular medical education, and whose conduct is governed by the rules of medical ethics.

It might prove a hazardous experiment to tamper with a Code of Ethics so complete and perfect as our National Code, and which has stood so well the test of time. Daniel Webster was accustomed to stigmatize efforts to amend the Constitution of the United States, as attempts to "tinker the Constitution." This pithy saying might be applied to propositions for altering our ethical code. But it is safe and reasonable for interpretations of the Code to be authorized from time to time, in adaptation to circumstances as they arise; and I

submit, as a recommendation, that the Association adopt resolutions embodying a more precise specification than the Code furnishes, of the grounds for refusing fellowship with irregular practitioners. This recommendation is in accordance with precedents. At the annual meeting in 1869, the Association adopted a resolution which recognized "specialties as proper and legitimate fields of practice." Herein was an authorized interpretation of the Code in adaptation to new circumstances. It was also resolved not to be "proper for specialists publicly to advertise themselves as such, or to assume a title not specially granted by a regularly chartered college." If there be the least room for uncertainty, let it be specified distinctly that the adoption of a sectarian title is not merely a violation of medical ethics, but a voluntary disconnection from the regular medical profession, and that professional fellowship is thereby not only inconsistent with self-respect, but prejudicial to the usefulness, the honor, and the true interest of the profession.

I believe that I do not err in saying that those objections made to the Code of Ethics which call for serious consideration betoken either an inadequate appreciation or an erroneous construction of the Code, and, therefore, such objections can be removed by authorized interpretations, which, being simply explanatory, without involving essential changes in the Code, are not subject to the provisions for amendments of articles embraced in the constitution and by-laws of the Association.

I must pass cursorily over the remaining objects for which, as enumerated in the preamble to the plan of organization, our Association was instituted. The means for "enlightening and directing public opinion in regard to the duties, responsibilities, and requirements of medical men; for exciting and encouraging emulation and concert of action in the profession, and for facilitating and fostering friendly intercourse between those engaged in it," furnish many topics which, if time permitted, would claim consideration.

Every member of our profession is often made painfully aware, not only of apathy, but misapprehension, in the public mind, as regards our "duties, responsibilities, and requirements." The popular diffusion of our Code of Ethics, allowing it to speak for itself, would go far toward the removal of many errors in regard to our profession. A valuable service, not less to the public than to the profession, might be rendered by proper efforts in this direction. In this way the public may, perhaps, be led to understand and appreciate the rules of etiquette for which we are often held up to ridicule, our opposition to secret nostrums and patented discoveries or improvements, and our refusal of fellowship with irregular practitioners. Recurring to the last-named topic, many suppose that fellowship with those who are not of the regular profession is refused either from a false sense of dignity or from prejudice, regardless of the dictates of humanity.

Now, the Ethical Code, neither in letter nor spirit, inculcates nothing in conflict with the humane exercise of our calling. This is a superfluous assertion to those familiar with the teachings of the Code. The principles of humanity underlie all its practical precepts. Quoting words which have been already quoted, "The good of the patient is the sole object in view." There are circumstances under which the higher law of philanthropy, placing in abeyance those rules of the ethical code as well as of etiquette which, under other circumstances, claim obedience, not only permits but commands members of the regular profession to bestow their professional services without stopping to ask whether a practitioner with whom chance has brought them into association be, or be not, a "fit associate in consultation." Under such circumstances, association with an irregular practitioner, governed by a supreme regard for humanity, involves neither fellowship nor professional affiliation, and it is to these alone that ethical restrictions apply. Let it not be conceded for an instant that there can be any antagonism between humanity and medical ethics. Nor is it difficult, in particular instances, to decide practically in what way the dictates of humanity are to be harmonized with ethical rules. Regarded in the light derived from both these sources, the path of duty is sufficiently plain. Any act honestly performed purely for a humane purpose, cannot but be consistent with the principle which underlies our admirable Code of Ethics. But, it is to be added, professional association with those who, in the language of the Code, are not "fit associates in consultations," except in emergencies, when philanthropy, for the time being, abolishes all restrictions, contravenes the humane objects of our profession just so far as the useful applications of legitimate medicine are thereby trammelled or curtailed. If it be inhumane, under certain circumstances, to decline association with irregular practitioners, it would be equally, or more so, under other circumstances, to make those concessions which professional fellowship requires to practitioners who profess hostility to medical science, and to the regular medical profession. The refusal of fellowship and affiliation with irregular practitioners, thus, is sanctioned not only by a sentiment of self-respect, and respect for our profession, but by a proper regard for the dictates of humanity.

The work in the several sections of our Association is of importance, aside from its intrinsic value, as a means for "exciting and encouraging emulation and concert of action in the profession." Now that whatever is here done is speedily laid before the profession through the medium of the weekly journal, it is to be hoped that there will be a larger attendance and greater activity at the meetings of the sections than hitherto. It is here that efforts are to be made for the advancement and diffusion of medical knowledge. On the results thereof must be based the estimation, in our own country, of the usefulness of the Association, and its rank as compared with sister associations in other countries. In short, we shall contribute to the true success of the Association, as we increase by our attendance and coöperation the value of the sectional work.

Our Association, both by precept and example, has aimed to facilitate and foster friendly intercourse between those engaged in the practice of medicine. The opportunities for the renewal of old, and the formation of new, friendships, and for social enjoyment, are, in themselves, sufficient to render the meetings of the Association of great value. Let us continue to cherish this last one of the several objects for which our Association was instituted, so that, in this point of view, to the enjoyment of its meetings may be added the pleasures of anticipation and of retrospection.

Our efforts to facilitate and foster friendly intercourse between members of the medical profession, as well as to promote the development and diffusion of medical knowledge, should not be limited to our own country. As the means of union for these objects of the medical profession of all countries, the meetings of the International Medical Congress claim a warm interest. The meeting of the Congress in London, in 1881, will ever be memorable in the retrospections of its members; and they who expect to attend the meeting at Copenhagen in August next, may anticipate much enjoyment as well as improvement. It would prove, as I doubt not, a source of great gratification to the profession of our country if the meeting of the Congress in 1887 were to be held in the United States; and I suggest the propriety of action to be taken now with reference to this desirable end. Inasmuch as an invitation should be in behalf of the profession of the whole country, and not of any particular section, it appropriately should come from the American Medical Association. If the suggestion be favorably received, it seems to me advisable that a committee be appointed with instructions to convey an invitation from this Association through its delegates to the Congress at Copenhagen. The committee may also be empowered to designate the time and place of the meeting of the Congress in 1887, and to take such other preliminary steps as may appear to the committee to be requisite.

My suggestion in regard to the International Medical Congress is not made solely on my own responsibility, but at the instance of several well known for their active interest in the welfare of the American medical profession. By one of the most eminent of these, quite recently, I was requested to make the suggestion in a letter written with a hand tremulous from serious illness which has deprived the Association of his presence at this meeting; one whose absence is a disappointment to many who were desirous to behold once more the genial, benignant countenance which has greeted us heretofore at our annual meetings; one whose writings have made American surgery illustrious; who is revered by the many thousands of practitioners who, during the last half-century, have listened to his instructions, and who is honored not only in our own country, but in other countries, as no member of the medical profession in America was ever honored before; one admired by all who have known him, and beloved by those who have enjoyed the privilege of his friendship. I know that I speak the heartfelt sentiments of every one who hears me and our brethren throughout the whole country when I express a fervent wish that Prof. Samuel D. Gross might be restored to health, and his life spared yet many years to his family, his friends, and his profession, which he adorns.

Brethren of the American Medical Association: I congratulate you on your presence at this annual meeting. It is peculiarly gratifying to meet together in this city, the Capitol of our government, in which there is so much of interest to us as American citizens. There is also much that is attractive in a professional view. We have the opportunity of forming and renewing acquaintance with the eminent members of our profession residing in this city and its vicinity. Here is the Army Medical Museum, the largest and most complete collection in existence of the results of gunshot injuries and of the diseases of armies. It is rich in illustrations of craniology and comparative osteology; and its specimens cover the whole field of medicine and surgery. Here is also the National Medical Library, the largest exclusively medical library in the world, and, as a practical working library, the most valuable owing to its immense collection of periodical literature, and the manner in which it has been indexed and catalogued. All praise and honor to the medical officers connected with the office of the Surgeon-General, to whom our profession and the country are indebted for the labor and skill that have made our National Medical Library and the Army Museum institutions of which we may justly be proud. Let us hope that Congress will not much longer delay in providing a commodious fire-proof building for the reception of the valuable collections which it would be impossible to replace, and which are of the greatest importance to the progress of medical science and education in this country.

The Naval Museum of Hygiene, although of recent growth, will be found to possess an interesting collection illustrating sanitary science, together with a good library. The National Museum, and the Museum of the Department of Agriculture, contain also much that is of interest to members of our profession.

To my congratulations are to be added my thanks for the great honor conferred on me by my election to the presidency of the Association. My grateful appreciation of the honor is enhanced by the fact that I did not seek nor desire the office. I should have been glad had the selection fallen on one better prepared to perform the duties of a presiding officer. I can only say that, relying on your indulgence and forbearance, I shall discharge these duties to the best of my ability.

May this thirty-fifth annual meeting of the Association be characterized by harmony and good feeling. With the blessings of Providence, may its proceedings strengthen the attachment of the American Medical Profession to the Association, extend the boundaries of our knowledge, and promote the welfare of mankind.

THE ADDRESS IN OBSTETRICS.

Delivered May 7, 1884.

BY THADDEUS A. REAMY, M.D.,

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FELLOW-MEMBERS: Custom, as well as law, prescribes as one of the duties of the Chairman of a Section that he present in his annual address a digest of the progress made in that special department during the past year.

Compliance with the letter of this law is now unnecessary, and would, therefore, prove unprofitable. Medical journals, general and special, both home and foreign, conducted with great ability, and exhibiting much energy and zeal in collecting and publishing the latest advances in all departments, are promptly placed by rapid mail facilities upon the table of every reading member of the profession. Moreover, the editorial criticisms of new doctrines, discoveries, methods, or operations are generally from the pens of those who by education and special training have superior abilities for such work. It is, therefore, deemed appropriate, on

the present occasion, to refer you for an "Annual Report on Obstetrics and Diseases of Women" to these more fertile and instructive sources.

Craving your indulgence, I beg leave to offer, in lieu of such an address,

NOTES OF TWO HUNDRED AND THIRTY-ONE CASES OF OPERATION FOR LACERATION OF THE CERVIX UTERI.

The date of my first operation for lacerated cervix, "Emmet's Operation," was February 28, 1874. I have now made the operation upon two hundred and thirty-one patients. Not a single death has occurred. In six cases the operation was followed by perimetritis, parametritis, or peritonitis. In but three of these cases, however, were the symptoms sufficiently severe to cause material delay in complete recovery. In one case, included in these three, there were perimetritis, parametritis, and general peritonitis. The patient was confined to her bed for three months. During the attack (acute stage) the peritoneal cavity was aspirated twice. On one occasion, seventeen ounces of serum were removed. This woman finally recovered her health completely. Considerable immobility of the uterus remained for a long time; but now, at the expiration of two years and a half, its mobility is about normal, and menstruation normal and painless; whereas, prior to the operation, she suffered both from menorrhagia and dysmenorrhœa. She was the mother of two children, the youngest being four years old at the date of operation. No abortions had occurred. Sterility continues.

The above case was one of bilateral laceration, extending on each side to the vaginal junction, the torn lips being widely separated and eroded. I attribute the inflammatory complications following the operation in this case to the undue degree to which the uterus was dragged down in order to give unobstructed access. On this point I shall have something further to say before the close of this paper. Complete recovery ensued in the other two cases, but convalescence was slow.

Of these 231 cases, in 170 the laceration was bilateral, in 38 unilateral. Of these latter, 23 were on the left side, and 15 on the right. 16 cases were stellate, in 2 of which there were four distinct lacerations. In 5 cases there was laceration of the posterior lip only; in 2, of the anterior lip only. In 80 cases the laceration was extensive, in 15 of which it extended to the cervico-vaginal junction on both sides. In 22 of the bilateral cases, the laceration extended to the cervico-vaginal junction on one side only. In 3 cases the rent extended to the internal os. In one of these, the vaginal wall was likewise extensively lacerated: the peritoneal cavity had probably been opened, followed by protracted cellulitis. This patient remained a helpless invalid during the three years intervening between the accident and the date of my operation. On one side it required twelve sutures to close the cervical and vaginal rent. Perfect success followed the operation, the patient being restored to robust health within six months.

In 167 cases there was perineal laceration to an extent that left deformity, either at the vaginal orifice or more externally. In 15 cases the anal sphincter was damaged. In 7 cases the recto-vaginal septum was opened up. In 26 cases I operated upon the cervix and perineum at the same sitting. In 5 cases of this series, I curetted the uterus with my blunt wire curette at the same sitting; this, of course, being the primary of the three procedures. In none of these five cases did a single untoward symptom arise. The results were perfect.

In 50 cases I operated upon the perineum after recovery from the cervical operation. Each of the above-mentioned cases in which the operation involved the recto-vaginal septum is included in this series of fifty subsequent operations. It is perhaps as well to state here that I never hesitate to curette the uterus in a case demanding it, at the time of operating upon the cervix. Nor do I hesitate to use the curette in a case requiring it immediately preceding a perineorrhaphy, pretty extensive clinical experience having convinced me that neither of these operations adds materially to the danger of curetting. Indeed, I am inclined to the opinion that in certain cases in which the conjoined conditions demanding the two operations exist, the depletion of the cervix in trachelorrhaphy presents an element of safety against inflammatory processes which may follow curetting. Three violent cases of traumatic peritonitis have occurred within my personal experience from the use of the curette, unconnected with other operation.

In not a single case of trachelorrhaphy performed by me did secondary hemorrhage occur. In every case in which hemorrhage was troublesome during the operation it was readily controlled by the stream of hot water which it is my custom to have flow upon the field of the operation during its progress, with but three exceptions, in which it being necessary to denude the torn surfaces deeply, twigs of the circular branch of the uterine artery being cut, compression with torsion forceps was invoked. Contrary to the practice of most operators, I have not, since my fourth operation, employed a tourniquet, ligature, or any similar method to control hemorrhage during the operation. As early as 1875, in my clinical lectures delivered in the amphitheatre of the Good Samaritan Hospital, Cincinnati, and repeated each year since, I emphasized the importance of allowing, in most cases, free bleeding from the denuded surfaces. First, (a), because it softens the tissues so as to allow more perfect coaptation of the tips to be united; and (b), because of this softening, which is immediate, the tissues are easily penetrated by the needle in carrying the sutures. Second, most important of all, this depletion not only promotes the return of the indurated cervical tissue to its normal condition, but is an immense factor in again starting the process of involution of the uterus, which had been arrested by the laceration and its consequences.

The restoration of form in closing the divided lips of a torn cervix, especially where the deformity is great, is important. The removal of such pathological conditions as may threaten the development of cancer, and no one can deny that this is in a certain proportion of instances within the scope of the operation, may be even more important; but the influence of trachelorrhaphy properly done, upon subinvolution, cannot be over-estimated. Thorough denudation, cutting out all cicatricial tissue, and allowing free depletion embrace the essential points in the operation so far as its influence upon involution is concerned.

So powerful is the influence of hot water in controlling hemorrhage from small vessels, when it can be poured directly upon the bleeding surface, that I have fre-

quently found it expedient to withhold this agent for a short time after the denudation is completed before introducing the sutures, in order that sufficient bleeding may occur to accomplish the ends above indicated.

The character of the labor which had resulted in laceration, could not be determined with any degree of certainty, except in comparatively few instances, since information upon this point could be obtained only from the patients themselves. In forty cases, delivery was accomplished by the forceps; in two by craniotomy; in two by turning. Two of the cases in which rupture involved the recto-vaginal septum, were forceps deliveries. It is my belief that early rupture of the membranes, and attempts at forcible dilatation of the cervix by the finger or fingers of the accoucheur or midwife, and the improper use of ergot, are far more fruitful sources of laceration of the cervix than the obstetric forceps.

In the city of Cincinnati seventy per centum of all deliveries are attended by midwives, who, with very few exceptions, are ignorant and unskilful. The sins above enumerated lie closely at their doors. But it cannot be denied that these errors of practice are sometimes perpetrated by well-educated physicians. Unquestionably, many cases of laceration occur unavoidably, no matter whatever care and skill may characterize the accoucheur's services. It should be the duty, therefore, of the gynecologist, in all cases in which patients are referred, or otherwise come into his hands for operation, to protect the physician who may have been present at the confinement against censure which may be unjust. All the more because the laity, when informed that a laceration of either cervix or perineum has occurred, at once assume a want of skill or care in the obstetric service. The emphatic declaration of the unavoidableness of these accidents should, by the gynecologist, be voluntary. So great is the danger that professional reputation may unjustly suffer from this source of censure that in an editorial in a recent issue of one of the ablest medical journals in the country, this was used as an argument against the adoption of Emmet's operation, except in extreme cases.

Mr. Jonathan Hutchinson points out that in many cases the first stage of cancer is that of inflammation; that "all inflammations are infective, and inflammatory processes may pass by almost imperceptible gradation into malignancy." The acceptance and appreciation of the above facts would lead, in many cases, to the more vigorous treatment of localized inflammations, more especially when they are situated in structures known from clinical experience to be specially prone to cancer, as the uterine cervix, the mammæ, etc. These considerations alone, even if they were not supported by others, urge upon our attention, with great force, the importance of Emmet's operation. It is the concurrent testimony of almost every distinguished American gynecologist who has expressed himself on this subject, together with many abroad, including Briesky and Schroeder, that the fretting of exposed tissue consequent upon ununited laceration of the cervix is a prolific source of danger in developing cancer.

Emmet, Thomas, Goodell, Mundé, and others, have cited cases verifying this danger. In my own practice quite a number of cases of cancer of the cervix have been observed in which the neoplasm developed either in the cicatricial tissue resulting from the laceration, or in the apex of the cleft. In my opinion, the influence of the accident under discussion in producing cancer has never been fully comprehended by any one. Emmet, the distinguished author of the operation under consideration, at first spoke out unequivocally; now, however, he alleges that he does not make trachelorrhaphy once where formerly he did it ten times; and it is easy to read between the lines of what he has recently written that he does not now believe the evils arising from laceration, not operated on, nearly so universal as he formerly believed them to be. He seems greatly to deplore the extent to which the operation is being done, and, as I think, without just cause. In further considering the relations between this injury and Emmet's operation to cancer, it may not be amiss to call attention to the fact, so thoroughly recognized by clinicians, that cancer of the cervix is almost exclusively found in women who have either given birth to one or more children, or been the subjects of abortion. So far as the cervix is concerned, cancer is a disease of child-bearing women, not of virgins.

In more than three hundred cases of cancer of the cervix of which I have notes, but one occurred in a virgin, and but ten in married women, in whose cases I could obtain no evidence of abortion or child-bearing. Can any one deny that such facts point strongly to the local origin of cancer in these cases at least? And can it be doubted that injuries inflicted upon the cervix during parturition have a direct or remote connection with this origin? Would it not be wise to repair these injuries when they are appreciable by whatever method it may be done most speedily and certainly? It is claimed that Emmet's operation should be limited to cases in which ectropion has occurred or in which a cicatricial plug imprisons or presses upon branches of sentient nerves causing painful reflex symptoms. I have heard it repeatedly stated that, no matter how extensive the laceration, the operation is not warranted unless these symptoms are present. These are, in my judgment, errors. Any laceration which has healed without its surfaces being in contact must have healed without complete union, although its extent may have been much lessened by granulation. But in all such cases there is more or less cicatricial tissue in the field of repair. This does not apply to the many cases in which anterior and posterior laceration occurs, and the parts not being separated complete union has occurred without the aid of the surgeon.

Cicatricial tissue in such locality, even should it not produce reflex symptoms, should be removed thoroughly and the parts closed so as to obtain union by first intention, in which cicatricial tissue is never found. If the rent be small then the operation is small, especially if it be done before chronic inflammation of the cervix has occurred as a result. The denudation need not be extensive or deep. In many cases an anæsthetic need not be administered, as the parts are not very sensitive. The uterus need not be drawn down, so there can be but little danger of cellulitis or peritonitis resulting. Why not do the operation in these slighter cases then as the simplest and safest method of cure, and thus avoid results which might arise in the future and prove more serious?

It is impossible for me to give exact data as to the influence of the operation on sterility, as many of these

cases soon after recovery passed out of my knowledge. And as the last fifty cases were operated on within the past thirteen months, sufficient time has not elapsed to test the question. I know, however, of fifteen cases in which conception has occurred and delivery took place at term. I have no doubt that as many more have proven fruitful. Of these I attended in labor six, one of these within the past month. In no case did relaceration occur, labor being normal except in two cases. In these dilatation of the cervix was slow, but finally complete; in neither case was it protracted. I have learned from medical gentlemen, who attended several of my other cases, that labor was normal. I believe that the operation properly done favors fertility—and often cures sterility. In but two of my cases did union fail. In one of these I foolishly used catgut ligature. In the other failure it was due to the sutures not being sufficiently tightened. In each case subsequent operation was successful.

I may have made the operation in cases not demanding it, but, from my point of view, I do not think so. In eight or ten cases reflex nervous symptoms which I hoped to banish by the operation remained, but in most cases the good effects were obvious; in some cases the cures were almost marvellous. My method of operating, after much thought and some experience, I think worthy of consideration, as it must, as I believe, have some advantages over methods generally adopted.

1. I use nothing but the single volsella to draw the uterus down, with which I seize but one lip, the one to be denuded first, at a time.

2. I draw the uterus down as little as possible. This caution should be the more scrupulously observed if any cellulitis remains about the base of the broad ligaments or elsewhere.

3. I outline the denudation with a sharp knife, and then cut the tissue included in the line with a sharp scissors. This prevents the rolling of tissue at the borders.

4. Allow free bleeding or not, as the condition of the tissue of the cervix and the involution or subinvolution of the uterus may require.

5. Use a nearly half-circle needle with very sharp point, armed with Chinese silk. A needle thus shaped can be drawn through the second lip and withdrawn very much more easily than a straight needle, or one curved only near the point, This advantage is all the more apparent when the uterus is not drawn down, as then the vaginal wall makes the withdrawal of the usual shaped needle difficult. I employ a plain needle-holder without any catch or slide, but strong. Silk is preferred to wire, because it can be tied much more quickly, and the tension more easily adjusted. Then there are no ends to jag the vaginal walls. Another great advantage of the silk over the wire, is in the fact that the sutures may be left in from fifteen to thirty days without danger of cutting out; quite an important matter in a case in which trachelorrhaphy and perineorrhaphy are done at the same sitting. The perineum may heal perfectly and be strong before removing cervical sutures. My custom is to allow the ends of the sutures to remain sufficiently long to reach nearly to the vaginal opening. This facilitates their removal.

6. Wash out the cervical canal at the close of the operation with a recurrent flow syringe, to remove any blood that may have found its way there during closure of the sutures. Have the nurse wash out the vagina with warm carbolized water within an hour after the operation is completed. The vagina is not syringed again until the sixth day; then daily until patient is dismissed. Cleanliness is the only antisepsis employed.

Authorities have been but little quoted, as it is the purpose of this paper to give simply notes of my own cases

ORIGINAL ARTICLES.

DOUBLE OVARIOTOMY; RECOVERY.

BY GEORGE F. FRENCH, A.M., M.D.,
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CASES of successful single ovariotomy are now so frequently reported that they scarcely arouse professional attention. The following case, however, presents, I think, sufficient complications to insure interest.

Mrs. Z., æt. 31, mother of one child seven years old, came to my office for the first time on May 9, 1883, complaining of an abdominal enlargement, supposed by physicians in the town where she resided to be a uterine fibroid. The tumor was first noticed seven months before, and had gradually attained its present size—that of an ordinary seven months' pregnancy. Mrs. Z. thought she had felt motion repeatedly until within a short time. The growth had caused but little inconvenience until lately, when there had been constant pain in the right side of the abdomen. Flesh and strength had gradually failed, and the patient was seriously reduced. Digestive disturbances had been present from the first; menses irregular and for some months absent; breasts unchanged. On examination, the abdomen was found uniformly enlarged; percussion sound flat in front and tympanitic at the sides; fluctuation indistinct. Through the abdominal walls a firm, hard mass could be felt, reaching from the pubes to the umbilicus, presenting a smooth surface towards the left, and several small prominences on the right. The pelvis was occupied by a tumor continuous with that on the left. No contractions felt; no auscultatory sounds. Ballottement could be felt from Douglas's cul-de-sac. To add to the obscurity of the case, the cervix was large, soft, and blue, and the os patulous.

This condition, as was afterwards discovered, was due to the use of a tent a few days previous to the examination. Notwithstanding the absence of some important signs, the patient was thought to be pregnant at about the seventh month, with possibly a dead child. The patient was advised to remain in town a few days, when a second examination might possibly clear up all doubts; this she could not do. An interval of a month, however, sufficed to clear up the diagnosis and decide the ovarian origin of the enlargement.

June 22.—I was summoned to see the case again with Dr. Milligan, of Wabasha, who had, a few days before, tapped the tumor and drawn off several quarts of thick fluid. The abdominal walls were now lax, the fluid small in quantity, so that the

several cysts of which the tumor was composed could be distinctly felt. The cervix, too, was now small and firm. The uterus could be made out bimanually and separated from the tumor. Its cavity measured three and a half inches. The diagnosis of ovarian cyst being thus demonstrated, it was decided to remove it at once. This was done with the assistance of Dr. Hunter, of Minneapolis, and Drs. Stone, Milligan, and Van Dyke, of Wabasha. The preparation of instrument, sponges, etc., as insisted upon by Lister, was closely followed; no spray, however, was used.

The operation began with the usual incision in the median line, three or four inches in length, beginning just below the umbilicus. Before the peritoneum was reached in the fascia transversalis, two large veins were discovered running directly across the line of incision. These were ligated with catgut. Hemorrhage having ceased, the peritoneum was opened on the director, when a large quantity of ascitic fluid escaped. The cyst was found adherent across its upper surface to the abdominal wall. These adhesions were fresh and easily broken up with the hand, with very little bleeding; no adhesions to the viscera were discovered.

The large cyst presenting at the incision was next punctured with the trocar, and its grumous contents allowed to flow off. The tumor-mass was still very large, but after gentle manipulation and the breaking up of numerous smaller cysts, the walls of which were very fragile, the whole mass, weighing thirty-five pounds, rolled out of the abdomen, attached only by a long pedicle to the right ovary. The abdominal walls were made to hug the tumor, so there was no escape of the bowels, which were protected by broad, flat sponges wet with warm carbolized water.

The pedicle was now examined, and, being found broad and vascular, was transfixed twice by a strong needle armed with silk cord, and tied in three separate parts. The tumor was cut away; the pedicle being absolutely dry, was dropped back into the pelvic cavity. Upon examination the left ovary was found to be a mass of small cysts, equally demanding removal. This was done by piercing the broad ligament as far from the ovary as possible, with a needle carrying a double ligature tied both ways, the ovary cut away and the pedicle dropped back as before. The abdominal and pelvic cavities were now thoroughly sponged out, and the bowels carefully cleansed. The peritoneum covering them was bright red, and the minutest vessels very prominent, with here and there points of exudate—unmistakably incipient peritonitis. The external incision was quickly closed with silver sutures put in place with the Peaslee needle, and the wound covered with carbolized gauze and cotton, held in place by a broad flannel bandage.

The time occupied in removing both ovaries was one hour and ten minutes. The patient rallied well from the operation, but in the second week exhibited a rise of temperature and rapid pulse caused by a small abscess in the abdominal incision. With this exception she made a good recovery, was able to go out of the house in four weeks, and has been well ever since, but has never menstruated.

The deceptive manner in which the several cysts simulated the fœtal parts, the ballottement of one of the cysts, the soft and livid cervix, conspiring to mislead in diagnosis, the double operation and rapid subsidence of the well-marked peritonitis, made the case one of unusual interest.

MEDICAL PROGRESS.

SUBLIMATE INHALATIONS IN PUTRID BRONCHITIS.—PROF. KORÁNYI reports a case of right pleurisy and mitral insufficiency in which putrid bronchitis was subsequently developed. Inhalations of carbolic acid and turpentine were used for four weeks, but caused no change in the character of the sputa. Korányi then used a solution of corrosive sublimate (gr. $\frac{1}{8}$ to water f ℥iij), of which ℥v were inhaled every morning and evening. In a week the patient was free of fever, coughed less, and the sputum was much better, and after a few days it was odorless.—*Centralbl. f. d. gesammt. Therap.*, February, 1884.

THE NINTH DIVULSION OF THE STOMACH.—On March 15th, PROF. LORETA performed this operation upon a young woman, æt. 20, who had stenosis of the cardiac orifice. She was doing well on April 9th. The cause of the stenosis is not stated.—*Gazz. degli Ospitali*, April 9, 1884.

ABSENCE OF KIDNEYS AND UTERUS.—DR. EDMONDO COEN, assistant pathologist in the University of Bologna, furnishes, in the *Annali Universali di Medicina*, for January, a minute anatomical description, illustrated by figures, of a fœtus without kidneys or uterus.—*Med. Times and Gaz.*, April 12, 1884.

COLD DOUCHES IN FEBRILE DISEASES.—DR. A. MOGILJANSKI, after giving the history of eighty cases, draws the following conclusions:

1. The cold douche, at 68° to 77° Fah., lowers the temperature in fever not less than a bath at 77° Fah., lasting ten minutes, and if two douches are given at an interval of one hour, the temperature will be more reduced than by the bath.

2. Two douches and one bath produce a more powerful effect than two baths and one douche.

3. The heart's action is slowed by the action of the cold douches, while at the same time the respiration is slowed in a less degree.

4. The muscular strength increases after the use of the douche.

5. Under the douche the respiratory movements become slower, deeper, and irregular.

6. The so-called typhoid state disappears after the use of the douche, though only for a short time. As the inspirations become stronger the lungs are ventilated, and the appearances of hypostasis disappear.—*Centralbl. f. d. gesammt. Therap.*, March, 1884.

NEPHRECTOMY.—DR. THOMAS SAVAGE reports a case of nephrectomy performed in 1883. The right kidney was very large and full of pus. A clamp was used to the meso-nephron. The patient died, but Dr. Savage thinks that the result would have been different had drainage been used here.—*British Medical Journal*, March 8, 1884.

THE MEDICAL NEWS.

A WEEKLY JOURNAL

OF MEDICAL SCIENCE.

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SATURDAY, MAY 10, 1884.

THE AMERICAN MEDICAL ASSOCIATION.

WASHINGTON, May 8, 1884.—The Thirty-first Annual Meeting of the American Medical Association was one of the largest, as well as one of the most successful in the annals of the Association. The attractions of the National Capital with its many beautiful public buildings, and its numerous scientific museums and collections, served to swell the number in attendance to thirteen hundred or more, and the high professional standing of the President of the Association has added to the character and dignity of the proceedings. The programme was full, and the attendance upon the various Sections unusually large. The President's Address was well received, and elicited favorable comment; and in accordance with his recommendation it was unanimously determined by the Association to tender a formal invitation, on behalf of the Medical Profession of the United States, to the International Medical Congress at Copenhagen to hold its next session, in 1887, in the City of Washington.

In the selection of President for the new year the Nominating Committee honored a representative from the South, who is well known, not only for his contributions to our literature, but also by the active interest which for many years he has manifested in the affairs of the Association.

The chief point of interest in the meeting centred in the first annual report of the Trustees of the *Journal*. The exhibit, while not very flattering, was thought to fully justify the Association in continuing, for another year, the publication under the existing arrangements.

At the close of the first day's session, gloom was cast over the Association by the announcement of the death of its venerable and beloved ex-President, Dr. Samuel D. Gross, and as the sad event was announced each Section took action towards honoring his memory, and the Association subsequently, in general session, paid a feeling tribute to the distinguished surgeon, who, ripe in years and full of honors, had just passed away.

The social features of the meeting were not neglected, and receptions at the Executive Mansion by the President, and at private houses were largely attended. Harmony and good feeling universally prevailed, and the Washington meeting will be long remembered as one of the best in the history of the Association.

THE DEATH OF DR. S. D. GROSS.

THIS country has had many eminent surgeons, but among these only two who, each in his day, have stood forth conspicuously above their fellows as the great representatives of American surgery. One of these, Philip Syng Physick, has been numbered with the dead for half a century, and the other, Samuel D. Gross, has just passed away.

There will be sorrow in our land among the profession from the Atlantic to the Pacific, from Maine to Texas, as the tidings reaches them of the death of the great American surgeon. Nay, more, wherever the science of medicine is known, his fame has gone, so that his death will be deplored not only in obscure hamlets and in distant isles, but in the crowded capitals of the world.

A grand life has ended; a great worker, working on until near four score years, has ceased from his labors; the cunning hand that for the saving of life guided the swift scalpel amid living tissues is motionless; the lips which for nearly half a century have been opened to give wise instruction are mute; the noble form which seemed to typify the greatness of the indwelling soul is forever prostrate; and the brain which was so richly stored with all professional knowledge is forever powerless.

Dr. Gross's life-work is done; and how great that work has been! In Cincinnati, in Louisville, in New York, and in Philadelphia he has been a medical teacher, and the thousands he has taught are scattered over the length and the breadth of the land. He has been recognized as the greatest teacher of the principles of surgery our country has ever had. His lectures, always carefully prepared,

and delivered without manuscript, save brief heads of the different parts of the discourse, were models of simplicity, and clearness of language, and completeness, and were delivered in a most impressive manner; he taught with authority, and, therefore, with power.

Dr. Gross, almost from the beginning of his work as a medical teacher lecturing to large classes, and lecturing for so many years, has been the teacher of more physicians than any one upon the continent. When we add to this the influence exerted by his writings, especially by his surgery, Dr. Gross has wielded a great and extensive power—greater and more extensive than that of any predecessor, in this country, at least.

As a practitioner, he was kind and devoted to his patients, shrinking from no exposure, and from no sacrifice of time and rest in their behalf. Other operators may have excelled him in mechanical skill, but none in wise judgment, and in hearty devotion to the interests of his patients.

He was in every element of his being and life a doctor, thoroughly devoted to his profession, constantly striving to advance its interests, and to promote the welfare of its individual members. How many a doctor, whether private pupil, or simply an attendant upon his lectures, or even without any previous acquaintance, has had from him kind words, wise advice, a helping hand. He has done much, by his words and by his example, to implant hope, stimulate ambition, to incite men to work, and thus rise to usefulness and honor, as the just reward of honest labor. To-day the American medical profession occupies a higher position because of the living influence and work of Dr. Gross.

Among his colleagues in the profession he was regarded with the greatest love and esteem. In the American Medical Association he was an irresistible power. When he rose to speak, what a hush of eager expectation; how every eye was turned to look upon that noble presence, the grand brow with its seal of intellectual power, the silver hair that seemed to tell of wisdom, the calm, kind face lighted with a genial smile expressive of a benevolent heart. Children playing with one who afterward became a famous monarch and conqueror in ancient times, as if with prophetic inspiration, crowned him king; but who, having seen Dr. Gross in the American Medical Association, or in other medical bodies, has not felt that he was a king amongst men, noble as the best of earth-born monarchs.

Few men have contributed as much as he has to medical literature. His writings extended over the field of obstetrics and pathology, as well as surgery, and the great work of his life, his *System of Surgery*, will stand an enduring monument of his surgical judgment and lore. When we join to the books he wrote, his contributions to periodical literature, to medical societies, and his public addresses, the amount of his literary professional work appears immense. His advancing years did not hinder him from placing on record the valuable experience of his long professional life, for within a few weeks of his death he prepared two very able papers, one for the American Surgical Association, and the other for the Obstetric Section of the American Medical Association, which he purposed reading before the respective bodies, but, alas, the hand of fate has ruled otherwise.

Dr. Gross was one of the most genial of companions, one of the most generous of hosts; his large knowledge of men and affairs, his extensive study of books, especially of those belonging to the profession, made his conversation both interesting and instructive, while his hospitality was proverbial.

He was the recipient of many and great honors. He was the founder of the Pathological Society of Philadelphia, of the Philadelphia Academy of Surgery, and of the American Surgical Society, and president of each of these bodies. He has been president of the State Medical Society, and of the American Medical Association, and of the International Medical Congress which met in Philadelphia in 1876. From the three great seats of learning in Great Britain he has received its highest honors — LL.D. from Oxford in 1878, from Cambridge D.C.L. in 1880, and LL.D. from Edinburgh in 1884, and from the University of Pennsylvania last week the title of LL.D. He was a member of various learned societies both in this country and in Europe.

Probably the most pleasing tribute paid to the worth and work of this noble man was the complimentary dinner given him by the profession of this city just five years ago. No one who was present can forget that memorable occasion; how heartily all bore willing tribute of admiration and love to the guest of the evening. The following passage in Dr. Gross's address was eminently characteristic of the man, of his work, and of his faith: "Oh! for a glance at the profession half a century hence, when man, enlightened and refined by education, and redeemed from the thraldom of ignorance and superstition, shall reflect more perfectly than he now does the image of his Maker." That was the spirit in which Lord Bacon believed medicine should be exercised, "For the glory of God, and for the good of man's estate."

Dr. Gross's great success is to be attributed to his constant work, to his indefatigable industry. Quite as much as any man in the profession he illustrated the truth of Velpeau's dying words: *Il faut toujours travailler, mes amis.*

Chance is one of the smallest elements, if element at all, in honorable professional success.

"The heights by great men reached and kept,
Were not obtained by sudden flight,
But they, while their companions slept,
Were toiling upward to the light."

There is thus no mystery in the grand success of Dr. Gross's life. He labored faithfully and systematically, and had the just reward of his toil; in all positions and in all duties he was true to the profession, and the profession was true to him, honoring, admiring, loving him in life, and in death revering his memory.

On a subsequent page will be found a complete biographical sketch of Dr. Gross.

THE SANITARY SUPERVISION OF TRANSATLANTIC STEAMERS.

THE extremely unsatisfactory condition of the medical service on transatlantic steamers, upon which we commented last week, is an evil which demands prompt remedy. The danger which constantly threatens the country from the introduction of infectious diseases, against which no suitable sanitary precautions have ever been instituted, either before embarkation, during the voyage, or at the ports of entry on this side of the Atlantic, is a question of very serious national concern, and, therefore, should very properly enlist the attentive consideration and judicious intervention of the General Government.

There is no doubt as to the frequent dissemination of infectious diseases throughout the country from lack of efficient marine medical service, and want of rigid application of necessary sanitary regulations at the ports of departure and entry and on shipboard. Instances have again and again been reported of outbreaks of disease clearly and definitely traced to persons infected previous to embarkation or during transit. So notorious did this fact become in 1882, as regards smallpox, that the National Board of Health was obliged to interfere with such limited authority as it possessed, to the end that the passengers arriving from infected places should be inspected and vaccinated when deemed to be insufficiently protected. This action, however, was not at all satisfactory, and had to be supplemented by an inspection service of immigrants, instituted at different points in the west. In the spring of the same year smallpox, scarlet fever, and measles were introduced in one of our ports through inefficiency of the medical and sanitary regulation of the transatlantic steamer service.

The effects of this common neglect of precautionary measures are palpable and far-reaching. The remedy, if left to the option of the ship-owners, will not be applied, as experience has proved. The authoritative intervention of the Government is required to guard the country from the development and spread of disease introduced from abroad. This may be accomplished, as has been suggested, by requiring all persons coming to the United States to show evidence of having been properly vaccinated at least fourteen days previous to embarkation; by insisting that vessels carrying passengers shall provide suitable hospital accommodation, and necessary assistance for the care of the sick; and by establishing a competent service of marine medical officers, who, being entirely independent of interested influences, will see the law observed throughout the voyage, and will be responsible to the Government for the faithful discharge of their duties and their intelligent coöperation with the quarantine authorities.

NEW TEST FOR PEPTONES.

SINCE some of the most delicate tests for albumen are rendered of doubtful value because they also produce reactions with peptones, the recent announcement to the Academy of Natural Sciences of Philadelphia, by DR. N. ARCHER RANDOLPH, of a new test for peptones is of great importance. It is based upon the fact that if the acid nitrate of mercury, Millon's reagent, be added to a cold aqueous solution of potassic iodide, a red precipitate of mercuric iodide always appears. If, however, either the peptones or biliary salts be present, the precipitate of nascent mercuric iodide assumes a yellow color.

In order to render the test sensitive to minute quantities of the substances in question, it is necessary to limit the quantity of potassic iodide employed. To each five cubic centimetres of the suspected fluid, which must be cold, and either neutral or faintly acid, two drops of a saturated solution of the reagent should be added, thoroughly mixing the whole. Now if four or five drops of Millon's reagent be added, and peptones or biliary salts be present, the yellow color appears. The question as to the presence of biliary salts is easily eliminated.

By this test, Dr. Randolph has been able to detect peptones in the proportion of 1 to 17,000 parts of water.

THE ACTION OF SALICYLATE OF SODIUM UPON THE UTERUS.

THE conclusions of DR. BALETTE (*Thèse de Paris*) are that salicylate of sodium, in the ordinary therapeutic dose, calms the pains of dysmenorrhœa, apppears to promote menstruation, and causes its reappearance in amenorrhœa. In four cases of pregnant women, in which the medicine was given in large doses, abortion occurred in two; but no such result was observed in other cases of pregnancy in which the remedy was administered in moderate quantity.

SOCIETY PROCEEDINGS.

THE AMERICAN MEDICAL ASSOCIATION.

Thirty-fifth Annual Meeting, held at Washington, May 6, 7, 8, and 9, 1884.

(*By Telegraph.*)

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, MAY 6TH—FIRST DAY.

GENERAL SESSION.

THE Association was called to order by A. Y. P. GARNETT, M.D., of Washington, Chairman of the Committee of Arrangements, who, after prayer, introduced, in the absence of the ex-President, Dr. Atlee, the PRESIDENT, DR. AUSTIN FLINT, of New York, and then delivered an *Address of Welcome.*

THE COMMITTEE OF ARRANGEMENTS

then presented a report. The list of receptions tendered the Association was announced. It included receptions by the President of the United States, the Medical Profession of Washington, Mr. W. W. Corcoran and the Board of Trustees of the Corcoran Art Gallery, Commissioner and Mrs. Loring, Chief Justice Waite, the Surgeon-General and Staff of U. S. Army, the Hon. George F. Edmunds, President *pro tempore* of the Senate, and Hon. John G. Carlisle, Speaker of the House of Representatives, and by a number of other prominent citizens. An invitation was also given the Association to visit the National Insane Asylum and the Hospital in connection with it,

Letters were reported from A. Pearce Gould, F.R.C.S., and other distinguished medical men of Europe, to whom invitations to attend the meeting of the American Medical Association had been sent.

THE REPORT OF THE COMMITTEE ON REGISTRATION

was read in full, and the election of the delegates who were therein registered confirmed, a motion to suspend the reading of the report not being sustained.

A letter was received from

DR. JOHN L. ATLEE,

ex-President, expressing regret at his inability to be present, which was ordered printed with the *Transactions.*

The ex-presidents of the Association were invited to seats on the platform.

THE PRESIDENT, DR. AUSTIN FLINT, then delivered the

ANNUAL ADDRESS.

(See p. 523.)

DR. J. M. TONER, of Washington, moved a vote of thanks to the President for his admirable address, and that the address be requested for publication. Unanimously adopted.

He also offered the following resolution concerning

DR. S. D. GROSS,

which was also unanimously adopted by a standing vote.

Whereas, It has come to the knowledge of this Association that one of its former presidents and a surgeon of world-wide reputation is confined to his room by illness, therefore, be it

Resolved, That the American Medical Association expresses to Dr. S. D. Gross its heartfelt sympathy in his illness, and the sincere wish for his speedy recovery and preservation for many years to the enlargement of the world-wide reputation and justly merited honors to which he has attained.

On motion, the above resolution was telegraphed to Dr. Gross.

DR. RICHARDSON, of Georgia, stated that he had just left the bedside of the very ill and honored ex-president of the Association, and that when he asked him for any message that he might desire to send, the reply of Dr. Gross was, in a feeble voice, "Give them my love!"

DR. SAYRE, of New York, made a motion that a committee be appointed to invite the International Medical Congress, which is to meet in Copenhagen, to select the place of its next meeting in this country.

DR. GARCELON, of Maine, moved that the Address be referred to a committee of five, to take action upon the various important questions concerned in it, and report to the Association as soon as possible. This was amended so as to read "a committee of seven," and adopted.

The Association then adjourned.

SECTION MEETINGS.

SECTION ON PRACTICAL MEDICINE.

The Section met in the Congregational Church, Cor. of 10th and G Streets, Washington, at 2.30 P.M., DR. J. V. SHOEMAKER, of Pennsylvania, *Chairman,* in the Chair.

DR. E. G. JANEWAY, of New York, read a paper on

THE DANGER OF RELYING TOO MUCH UPON SO-CALLED PATHOGNOMONIC SIGNS OF DISEASE.

It is often a very brilliant thing, he said, to make a snap diagnosis, but it is not safe to do so; for many so-called pathognomonic signs of special diseases are found, on closer inspection, not to be so in reality. For instance, optic neuritis, conjoined with headache, used to be considered as a pathognomonic sign of cerebral tumor. This is not so. We know that it only means that there is some increased pressure in the brain. You must also eliminate Bright's disease of the kidneys. Volitional tremor is thought by some to be very characteristic of multiple sclerosis, but a similar condition is observed in patients who are under the influence of metallic poisons such as mercury, and also in those who have partaken freely of alcoholic stimulants. We often find considerable difficulty in cases of coma, in endeavoring to decide whether it is of hemorrhagic or uræmic origin. The variations in the temperature of the body are here a valuable help in our investigation; but they are not sufficiently certain to found a positive conclusion upon. The existence of heart murmur, or the absence of it, does not positively settle the point as to whether there is an embolus in the brain or a hemorrhage; and albumen in the urine is often associated with these lesions. The author went on to consider the so-called pathognomonic signs of other diseases—referring to heart and chest disease. It is not wise to rely too much upon these signs, but to take the whole bearing of the case in making the diagnosis.

DR. FRANK DONALDSON, of Baltimore, in opening the discussion, spoke of cardiac murmurs. He had

known of cases in which the autopsy showed marked stenosis of the mitral orifice which had presented no murmur during life.

DR. JANEWAY said that in some cases of pleurisy of slight grade bronchial breathing is not present, and he had seen people much misled by it. In regard to mitral stenosis, he thought that it could sometimes be detected by a long first sound with a slightly blubbering character, even when there was no murmur.

DR. AUSTIN FLINT, of New York, then read a paper on

THE CLINICAL STUDY OF HEART SOUNDS.

This field of research is, he said, a comparatively uncultivated one. In 1858 he read a paper on this subject before the American Medical Association in Washington. This paper which he was now reading he designed to be supplementary to the former one. The views he then expressed, as to the value of the study of heart *sounds* as opposed to *murmurs* (or adventitious sounds added on to or replacing the normal sounds), he still holds. Cardiac murmurs are very important, and they are being carefully studied, but the sounds are too much neglected.

He considered the ordinary division of cardiac sounds into two kinds—the first, or systolic; the second, or diastolic, to be very incomplete. He thought the proper classification would be to say there are five sounds—two of which are disastolic and three systolic.

The diastolic are (1) the aortic and (2) the pulmonary, heard in the right and left second intercostal spaces respectively. The systolic are (1) the mitral, (2) the tricuspid, and (3) the sound caused by the propulsion of the heart against the chest walls, which he would call the impulsion.

This last is heard best at the apex, and determines the length and intensity of the first sound of the heart, and gives the booming character that is heard with this sound. The impulsion sound is heard over only a limited area. The best place to hear the mitral sound proper is in the fourth intercostal space, far enough to the left to eliminate the sound caused by the impulsion. Here the sound is of a purely valvular character. The tricuspid sound is heard at the base of the xiphoid cartilage. Its maximum also is found where the effect of the impulsion of the heart can be eliminated.

Changes in the aortic sound. Incompetency of these valves gives rise to a diastolic murmur. But this murmur furnishes evidence of nothing more than the simple fact that there is an incompetency. Of the extent of the incompetency it furnishes no index whatever. This information must be obtained by the strength or weakness of the aortic sound which is heard along with the murmur, as compared with that of the semilunar valves on the right side, provided these be under normal conditions, or, better still, by noting the character of the impulsive sound of the left ventricle. If this be much interfered with, it is a sign of marked overfilling of the left ventricle, and of a considerable degree of insufficiency.

The aortic sound may be diminished also by the lessened quantity of blood sent into it by the left ventricle, as in cases of mitral disease. It may be increased in one of two ways: by the increased force of the systole of the heart, or by increased pressure in the systemic arteries, as, for example, in contracted kidney. This last cause, which is so much dwelt upon by many authorities as to be taken as almost pathognomonic of contracted kidney, Prof. Flint looked upon as being very doubtful. In some experiments undertaken by Dr. C. F. Roy, in which he abruptly cut off a considerable part of the general circulation by tying a main artery leading to the part, there was hardly the slightest effect produced on the aortic sound. As a matter of clinical experience, he knew that this state of the aortic sound did exist without the disease in the kidney, and *vice versâ*.

Changes in the pulmonary sound. This may be increased or diminished. Skoda pointed out the increase in the sound that is noted when the right ventricle is hypertrophied. Besides this the sound is intensified by anything causing obstruction in the circulation of the blood through the lungs. Increased blood pressure is met with in the pulmonary circulation in various diseases of the lungs, such as pneumonia, capillary bronchitis, emphysema, pleurisy, etc., and the amount of increase in the intensity of the pulmonary sound is a gauge of the amount of obstruction in the lung. When the heart is beating more rapidly than usual, as after exertion or in mental excitement, the pulmonary sound is more increased than the aortic from this same reason.

As to the significance of diminished intensity of the pulmonary sound, Dr. Flint would not say much. It would be present in regurgitation, which, however, is an extremely rare affection. The absence of the sound in aortic trouble is also of little practical moment.

Changes in the mitral sound. Heard at the place recommended by him at the beginning of the paper, the mitral sound is short and valvular. A systolic murmur here denotes simply incompetency of the mitral valve, but gives no information as to the degree. The weakness of the sound heard with the murmur will give a clue to this. The sound will also be weak when there is fatty degeneration or dilatation of the heart. In overfilling of the left ventricle, the excursive movements of the mitral valve are interfered with, and are lessened. The tension of the valves during the systole will, under these circumstances, be not sufficient to occasion much sound, for the intensity is in proportion to the excursive movement of the valves. In anæmia the sound is intensified. In cases in which there is a presystolic murmur, and the sound is more intense, it shows that the curtains of the valves adhere to one another, leaving a buttonhole opening. In these cases the action of the valves is strong, and there may be no systolic murmur.

Impulsion sound. This generally predominates very much in healthy persons. It may be increased, decreased, or lost. As it is an ex-cardial sound, and is not transmitted, it is heard over only a limited area. It has a specially booming character in hypertrophy. It is diminished in fatty degeneration and in softening of the tissues of the heart, in fevers—when it serves an important purpose in indicating the need of stimulants, etc. In pericarditis, it is lost during the stage of effusion. In these cases, the aortic sound may be louder at the apex than the mitral.

Tricuspid sound. Weakness of this sound is of slight importance. A thrombus in the right ventricle has been known to extinguish the sound altogether. In hypertrophy of the right ventricle it is intensified, and this is a better sign of this condition than the increased inten-

sity of the pulmonary sounds, since that depends so much on the variations in the blood-pressure in the pulmonary artery. Disease of this valve is rare, except as a congenital trouble.

DR. F. C. SHATTUCK noticed that Dr. Flint ignored the muscular element in the production of the first sound, which is regarded as so important by many. There is a difficulty in the theory that contracting muscles make appreciable sound. In hypertrophy following aortic disease, the first sound is sometimes wanting.

DR. JAMES C. WILSON, of Philadelphia, said that, in Germany, emphasis had been laid upon the study of heart *sounds* as well as of murmurs, and referred to the work of Felix v. Niemeyer. There is some doubt as to the part played in the production of the first sound by the contraction of the muscles.

DR. RICHARD MCSHERRY, of Baltimore, entered into the consideration of the general progress of exactness in our methods of diagnosticating cardiac affections, from the time when the stethoscope was called a "divining rod" by the old physicians, to the present day.

At this period the announcement of the death of PROF. S. D. GROSS, of Philadelphia, was made, and a motion was put to adjourn out of respect to his memory. Prof. A. Flint said that he had been intimately associated with Prof Gross for many years, and felt sure that he would be the last man to wish the proceedings of this convention to be suspended. The motion was lost.

DR. GARLAND, of Massachusetts, spoke of the importance of eliminating the effect on cardiac sounds of the respiratory movements. In cases of any doubt always examine the heart during forced inspiration and forced expiration.

DR. DONALDSON, of Baltimore, thought it doubtful whether impulsion could be considered a *sound*. It adds to the intensity, but is hardly a sound *per se*. He denied the muscular element in the production of any sound capable of being heard by ordinary methods. He then entered at length upon the origin of the presystolic murmur, which he was rather inclined to consider, with Leaming, to be produced at the commencement of the systolic sound, and not by the contraction of the auricle, which was so slight and weak.

DR. JANEWAY, of New York, said that in cases in which there was a presystolic murmur, the auricle was hypertrophied and its contractions were therefore stronger—there was also felt a presystolic thrill.

DR. J. S. LYNCH did not agree with Dr. Flint in regard to the absence of increased aortic sound in cases of contracted kidney. He noticed that Dr. Flint assumed increased tension in the pulmonary artery to be the cause of increased intensity of the pulmonary sound. Why, therefore, did he deny a similar cause in the production of an increased intensity of the aortic sound? He also noticed that Dr. Flint had taken no account of the systolic vibrations of the aorta in the production of the first sound of the heart. It was this, Dr. Lynch thought, that gave the first sound its booming character.

DR. FLINT said that he would not reply to the remarks that had been made as to the cause of cardiac murmurs, nor even to the cause of cardiac sounds, as time was limited and he had confined himself to clinical questions exclusively. In regard to Dr. Lynch's objection to the inconsistency of denying increased pressure in the systemic arteries to be a cause of increase in the intensity of the aortic sound, he had no explanation; he based his conclusions on clinical facts.

DR. LOUIS A. DUHRING, of Phila., then read a paper on

DERMATITIS HERPETIFORMIS.

Under this name Dr. Duhring described a most protean form of skin disease which had hitherto been classed under numerous different names, and had often been left nameless. One form of it had been described by Hebra as impetigo herpetiformis, as a rare and grave disease of which Hebra had had five cases, four of which had died. This, however, was only one form of the disease. In Dr. Duhring's hands the disease, while very intractable, had never ended fatally. He described several varieties, as the pustular, the vesicular, etc. As the disease is so protean in its forms, and certainly herpetic in character, he considered the name he had adopted answered it the best of any. All forms have certain things in common; there are malaise and considerable constitutional disturbance for several days before the appearance of the eruption and intense itching, which continues till the lesions have been ruptured. There is considerable febrile action. The eruption appears mostly over the anterior part of thighs and trunk. It is confined to neither sex, but appears mostly in adult life. It is certainly a systemic disease, and is very intractable and extremely liable to recur.

The next paper was on the

ETIOLOGY OF PERICARDITIS,

by DR. JAMES WHITTAKER, of Ohio. This disease is more often overlooked than suspected, and it is often latent, owing to the fact that frequently the local symptoms are slight, and where there is no history of rheumatism it is apt to be overlooked. Rheumatism is the most frequent single cause, but it does not cause the majority of all the cases. Of the frequency of pericarditis, the author quoted statistics showing that about four per cent. of autopsies give evidence of the existence of pericarditis, which is really higher than the proportion of endocarditis; clinically, endocarditis would seem to be more common. Pericarditis should not be classified as primary and secondary, but as mechanical and infectious—the first arises from injuries and from extension of inflammation from contiguous parts, etc.; the second, which is the true pericarditis, occurs in diseases dependent upon the existence of a microörganism. Rheumatism heads the list, then pyæmia, septicæmia, typhus and typhoid fevers, scarlatina, etc., malignant dysentery, cholera—in short, all diseases that have a mycotic origin. Three cases have been reported as occurring after vaccination. Infantile pericarditis has generally been referred to puerperal disease in the mother having extended to the child. It proves fatal in the first sixteen days of life. Endocarditis is frequently associated with pericarditis. The treatment medicinally should be anti-mycotics, cold, and rest.

DR. PRENTISS'S paper on *The Pharmacopœia* was, on account of the sickness of the author, read by title and referred to the Publication Committee.

DR. G. V. BLACK, of Illinois, read a paper on the

PRODUCTION OF POISONS BY MICROÖRGANISMS.

The association of certain germs with many diseases is pretty certain, but how they cause or modify disease is not explained. The author proceeded to show how

in all living things—plants and animals—there must be digestion, effected by some fluid secreted by the organism which will act as a solvent—there must be absorption of this material and appropriation of it to the needs of the life, and then the throwing off of the waste material. He said that in all forms of life (except the egg and the seed) excretion was of two kinds—one corresponding to the respiratory execution, which was rich in oxygen, and one corresponding to urea, which was poor in oxygen. In the yeast plant there are, *e.g.*, the carbonic acid, which is the respiratory excretion, and the alcohol, which corresponds to the urea. In plants the alkaloids, which are deposited in the unused part of the tree, are the true analogues of urea in man. The higher plants consume the smallest amount of food in proportion to the amount of structure building; they, therefore, excrete little. The case is just the reverse with the lowest forms of vegetable life. This general process he called remolecularization. These excreta are generally poisons to the animal or vegetable excreting them. But the poisonous character of the microörganisms varies as do the alkaloids found in trees and plants. The poison in the microörganisms corresponds to the alkaloids in trees and plants. It is their excreta that renders them dangerous. Before their true effect on the organism can be known, these excreta must be separated and analyzed.

DR. TRAILL GREEN, of Penna., then read a paper on

THE NEW CHLORATE,

in which he praised the chlorate of sodium, thinking it superior to the potassium chlorate in every case in which the latter is useful, as being more soluble and far less irritating to the stomach. It can be given in larger doses, and, therefore, is more efficacious. As a local application in poisoning from the mercury vine, in the proportion of 4 to 12 grammes to 500 cubic centimetres of water, it is most satisfactory; also as a local wash in scarlatina. In conjunctivitis, and in irritations of mucous membranes ending in the skin (piles, etc.), it is most soothing. He thought the sodium salts in every way preferable to the potassium salts, and illustrated the difference in the irritating qualities of sodium and potassium salts, in the use of bicarbonate of sodium in burns, which answers well, while no one would think of using bicarbonate of potassium for the same purpose. In conclusion, he said that if any physician would try the effect of substituting sodium chlorate for potassium chlorate in his practice for one month, he felt sure that they would discard the potassium for the sodium. He had seen a case of angina yield to sodium chlorate that had resisted the potassium salt.

SECTION ON SURGERY.

The Surgical Section assembled at 2.30 P.M., with C. T. PARKES, M.D., of Chicago, in the Chair.

On motion of DR. KELLER, of Arkansas, it was decided to limit each speech in the discussion of the several papers to five minutes, speakers to have a second hearing only by consent of the Section.

The only paper read was that of DR. FREDERICK S. DENNIS, of New York, on the

TREATMENT OF COMPOUND FRACTURES.

In advocating any special kind of treatment, the speaker said, there are several salient points to consider. First, the method should be a safe one, and proved to be such by the crucial test of experience. Second, it should yield results unattended by any septic infection, by shortening, and by deformity. Third, it should be a simple one, unaccompanied by compound splints and cumbersome apparatus.

As essential for the attainment of good results, by whatever method, the author gave these rules: Immediate fixation, absolute cleanliness, and arrangements for thorough drainage when necessary.

Immediately after the injury has been sustained, he said, the wound should be carefully washed with a solution of carbolic acid, or irrigated with a solution of the bichloride of mercury, and the plaster-of-Paris bandage immediately applied. The bone, if it protrudes and cannot be reduced, should be sawn off with the chain-saw. A fenestrum is cut through the bandage to permit free drainage. This was the method employed by the author, and from its use he reported that primary union had occurred in a number of cases, without a sign of suppuration, and without the use of a fenestrum in the bandage. When suppuration does occur, however, the keynote to success is to keep the parts free from septic irritation, which is accomplished by free drainage and frequent cleansing with antiseptic solutions. When the granulating surface is pale and unhealthy in appearance, a poultice sprinkled with red cinchona bark should be applied. When the parts are healthy, iodoform may be used.

The author then defined what is meant by a compound fracture, stating that the entrance of air to the seat of fracture is an essential condition to its definition, and that, hence, the wound through the soft parts is produced by the injured parts within pushing out. The difference in the manner of union of simple and of compound fractures was treated of. In submitting his report to the Section, the author said that he would endeavor to show that the result was at least as good as that obtained from any other plan of treatment. It was unattended in any case with non-union and deformity, and his records, as regards shortening, were as satisfactory as any, and during the process of repair there was as little disturbance of health as was found in any plan of treatment.

The speaker then reported 128 consecutive cases of compound fracture of various parts of the body, with a tabular statement of the results. The report may be summarized thus: Compound fractures of skull, 22 with 6 deaths. Of the 16 recovering, 10 were trephined. Compound fractures of thigh, 3; leg, 48; arm, 10; forearm, 13; lower jaw, 8; hand and foot, 19; ribs and nasal bones, 4; miscellaneous cases, 30. Deducting from these cases those who died from shock or within forty-eight hours after injury, he had 95 cases without a death. This mortality was lower, he showed from statistics, than that reported from treatment by the strictest antiseptic Listerian method.

Just at the close of the reading of this paper, the President was handed a telegram containing the sad intelligence of

THE DEATH OF DR. S. D. GROSS.

On motion, a committee was appointed to draft resolutions upon the death of the esteemed member, and the Section was adjourned until Wednesday afternoon.

SECTION ON OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

DR. J. F. CHISOLM, *Chairman*, called the Section to order, after which the first paper was announced, viz.,

NEOPLASMS OF THE LACHRYMAL GLANDS,

by DR. P. D. KEYSER, of Penna. He stated that he believed this disease to be of very rare occurrence, and, having had two interesting cases lately, he wished to give some of the results of his study of them. He then described the first one, in which the patient (aged fifty-five years) was found to have an almond-shaped lump over the eye-ball, which it pushed down, and pressure on which occasioned some pain. It had existed for several years. Vision 20.20 (old notation). Tumor diagnosticated as enlarged lachrymal gland. On removal it was one inch and a half in length by the same in depth, and twice the normal thickness.

Microscopical examination showed the new growth to spring from the centre of the gland, while the outer portion showed inflammation cells only.

After the lapse of two years, there had been no return. The study of these tumors, microscopically, was of interest as helping to decide the question of their origin; some writers maintaining that they always started in the gland itself, while an external origin, gradually invading the gland, was probable from some cases observed.

The second case was then described; patient aged forty-seven; tumor raising upper lid so that it could not be closed; pupil slightly contracted; vision 20.20; no pain whatever. At a later examination the tumor felt hard and firm; local applications had no effect. It was then removed, and Dr. Seiler made a microscopical examination of it. This showed numerous round-cells and a stroma, but no alveolar cells. A purely fibrous capsule enclosed the growth. This was in May, and by October of same year a second growth had appeared, twice the size of first.

This showed a different structure from the first, and was pronounced a round-cell sarcoma; no capsule found. A *third* growth ultimately formed in the same eye. The speaker said that these growths, when confined to the gland, gave a sure prospect of recovery by removal, but, extending into surrounding tissues, were apt to return.

DR. WILLIAMS spoke of the permanent ptosis which was apt to follow on the removal of these tumors, and had himself sometimes been inclined to attribute it to inadvertent cutting of the levator palpebræ. He thought the disease very rare.

THE CHAIRMAN stated that he had seen four or five of these growths, mostly of a malignant character, and related one case in which, in a young woman of twenty-three, it had existed from childhood, pushing the eye out so slowly that vision had been retained, though impaired. Microscopic examination showed calcareous deposit.

DRS. BURNETT and THOMPSON took part in the discussion, the latter describing a growth of the gland which returned rapidly after removal; the second tumor was hard, and squeaked under the knife. This was pronounced scirrhus by a microscopist in Indiana, but he believed this opinion to be incorrect.

DR. E. WILLIAMS, of Ohio, then read a paper on

DIAGNOSIS IN OPHTHALMOLOGY.

He spoke of the importance of thorough preparation on the part of medical men for the practice of this branch of medicine. He believed that no physician was qualified to practise in a special department without a broad general study as a ground-work. He gave a feeling account of the injury done to the public by ignorant pretenders in the science of ophthalmology, and eulogized the American Medical Association for its action in ruling out all advertising quacks. He believed that the remedy lay in greater care on the part of private physicians in recommending students as proper persons to study medicine. The colleges of the country were also to blame, he thought, as they too frequently "ground out from the screenings" material for the medical profession which might have achieved success in the mechanical arts, but made poor doctors. A more general knowledge of the principles of the science would also deter "general surgeons" from ophthalmic surgery, when not qualified for successful practice in that line.

Dr. Williams then referred at length to the important connections of disease of the eye with other general disorders, instancing retinitic albuminuria, ophthalmia neonatorum, and eye symptoms in disease of the brain and spinal cord.

He then described a case of sudden loss of sight in the right eye by a single lady who had just passed the climacteric period, which, with the hemorrhage detected in the affected eye, he attributed to the cessation of the catamenia, and consequent disturbance of the system. In internal strabismus of long standing he had made a rule to refuse to operate; incurable diplopia was likely to follow.

DR. KEYSER stated that he had operated with success in long-standing strabismus by cutting out a piece of the paralyzed rectus externus, and joining the severed ends.

DR. SAMUEL D. RISLEY, of Pennsylvania, then read a paper on

SYMPATHETIC NEURO-RETINITIS, WITH REMARKS,

in which he related the rise and progress of a typical case. This paper brought out an extended discussion, in which a number of the members joined, and all referred to the importance of sure guides to the ophthalmic surgeon in cases of threatened injury to a sound eye by spread of inflammation, and elicited somewhat divergent views on the subject, according to the individual experience of the speakers.

DR. STEVENSON related a case in which, by "sympathetic" irritation, inflammation was transmitted to the brain and meninges with fatal result.

DR. WILLIAMS spoke in favor of a conservative policy in these cases. He believed that harm had been done by a too sweeping application of the preventive treatment by enucleation; an eye might be saved that would be much better than no eye at all.

DR. WM. S. LITTLE related a case in which a patient stubbornly refused to submit to enucleation of an injured eye, became blind, as his surgeon predicted, and subsequently *recovered* the sight, the inflammation subsiding and leaving a useful eye. He has generally refused to operate in old people for "subjective traumatism" after injury sustained long before.

DR. THOMPSON thought that while in addressing ophthalmologists of special training, these views might do no harm, yet he thought that the general public should not be treated with high-colored accounts of recovery after refusing to submit to operation as advised by the eye-surgeon, lest false inferences might gain ground to the detriment of ophthalmic surgery.

DR. HOBBY then related a case that had come under his care, and a portion of the time under Dr. Young's. He operated for relief from pain from the effects of a past iritis. The eye became subsequently violently inflamed, and, as the patient lived far from surgical aid, it was decided not to wait for sympathetic irritation but to enucleate. Pain set in in the other eye, which was relieved by broad iridectomy. He believed that when, at the earliest indications of sympathetic irritation, enucleation was made without preventing trouble, we should be taught not to wait for this irritation before operating.

DR. SEELY, of Cincinnati, said that he was glad to find that the gentlemen in this discussion repudiated the idea of an occult sympathy as causing this trouble, such "sympathy" being formerly a term to cover ignorance, and unwarranted by any analogy in pathology or medicine. It was not *sympathy*, but *transmitted disease*. In speaking against the needless removal of an injured eye, Dr. Little had exactly expressed his views. An eye might see well enough to guard its possessor against danger from a coming carriage, etc., though not capable of more distinct vision.

DR. CARL SEILER, of Phila., then read a paper on the

USE OF MINERAL WATERS IN CATARRHAL AFFECTIONS OF THE MUCOUS MEMBRANE OF THE UPPER AIR-PASSAGES.

There are at Cresson three springs. 1. One a very strong iron spring, which, according to the analysis made by the Pennsylvania State Survey, ranks with the best so-called steel springs of Europe. 2. A ferruginous alum spring and a weak magnesia spring. These waters he used on a number of patients suffering from chronic catarrhal inflammation of the upper air-passages in the form of sprays applied locally to the diseased mucous membrane, and the iron and magnesia waters internally with proper regulation of the diet of the patients. He found that the ferric alum water had a decided tonic and stimulating effect in those cases of atrophic nasal catarrh which were complicated with pharyngitis sicca and chronic laryngitis, and that the beneficial effect of the local application was very soon apparent.

The iron water he found to have no very decided effect upon these cases, but to be of great value in cases of follicular pharyngitis, and in the milder forms of hypertrophic nasal catarrh, as well as in cases of ordinary simple chronic laryngitis and bronchitis. The magnesia water locally applied gave no results whatever, but he found it a valuable adjuvant in the treatment of patients suffering from lythæmic inflammations of the mucous membrane of the upper air-passages. In these cases the patients were directed to drink the water freely, and its slightly diuretic effect soon became apparent. The iron spring also is somewhat diuretic in its action, but is chiefly valuable as a tonic, particularly in cases with feeble digestion.

THE CHAIRMAN here said that it was his painful duty to announce the

DEATH OF DR. SAMUEL D. GROSS.

After a resolution expressive of their sense of the loss thus sustained, the Section adjourned.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

The Section met at 2.30 P.M., THE CHAIRMAN, DR. T. A. REAMY, of Cincinnati, presiding.

DR. R. S. SUTTON, of Pennsylvania, presented a paper on

DESPERATE SURGERY AMONG WOMEN; THE PROPER FIELD FOR IT; WHO SHOULD AND WHO SHOULD NOT ATTEMPT IT.

Desperate surgery, he said, means operations endangering life, and in women it is chiefly intra-abdominal. Its dangers are not to be denied, as is shown by American statistics. The proper place for these operations is not in the general hospital with its pus-soaked walls, or the modern dwelling with its defective sewage, or roadside cottage with its health-bringing air; there cannot be found the indispensable nurse, and the surgeon may be a league away. These conditions render such a locality unavailable.

The material elements of safety are: Large airy apartments, no zymotic germs, sun and air space, perfect sewage, quiet city neighborhood, a conscientious nurse, but necessarily a trained one, and the surgeon near his patient. All of these conditions are secured in a private hospital, and with them we can equal the success of Keith or Tait, by whom they are practised. Statistics show that the best results are obtainable in a private or special hospital.

The general practitioner who is exposed to the poisons of scarlatina, diphtheria, and erysipelas, is not warranted in assuming the responsibility of these operations, and by so doing destroys life and makes himself liable to criminal prosecution. The obstetrician encountering puerperal peritonitis and other zymotic diseases, has no right to imperil a woman's life. The gynecologist may be the minister of death whilst attending a case of uterine cancer. The clothing of the practitioner from exposure to infective diseases may be the deadly agent. The history of the past and the judgment of the present decide the operator to be a specialist, and exclude him from general practice. Dr. Sutton concluded with the assertion that, for successful abdominal surgery, the absence of all zymotic disease poison, and the presence of perfect cleanliness and good nurses are essential.

DR. ENGELMANN, of St. Louis, then spoke of the importance and difficulty of blending theory and practice. He thought that Dr. Sutton's views are theoretically true. The late Dr. Hodgen, an acknowledged able surgeon, lost most of his ovariotomies. He attributed it to the fact of his having at the same time practised general surgery and medicine. He thought that the chief law of success—"absolute cleanliness," was necessary; and that it was best carried out in a private hospital. He had seen an influx of sepsis, apparently from the presence of a single gentleman at an operation, conveyed to the patients that had been and were operated on in a hospital where the most severe abdominal operations had resulted previously in but a slight or no rise of temperature. Dr. Engelmann insisted on the greater value of a "cleansed" than of a trained nurse.

The specialist endangers the success of his operations when he must take the general practitioner as his assistant. If the specialist can achieve absolute cleanliness, he must do it. Even in the English hospitals there remains much to be improved. The private hospital of Dr. Martin is by no means a model one, and he thought his success had been due entirely to skill and cleanliness. Dr. Martin's new hospital is to have a room for major and one for minor operations, and will be so constructed as to be easily flooded, when necessary, with a proper disinfectant.

DR. DUNLAP referred to his experience of over forty years, and said that, theoretically, the statements contained in the paper are true. One of the main factors of success had been, however, omitted. This is the condition of the patient's mind when removed from her home and left in a hospital. He insisted on the importance of the woman's conviction of recovery after the operation, and did not think the practitioner a walking magazine of death and destruction; yet he is careful of cleanliness, the value of the purifying influence of the air in removing the poisons of infectious diseases that may have penetrated the clothing. During 1881–2, almost every one of his ovariotomies died. He lost three cases in succession. Since March, 1883, he has operated twenty-two times, with but two deaths. One of these was in a woman of seventy years; the other, sixty-four and broken down. He is particular to thoroughly clean the wound, and treat his hands and instruments in the same manner. He favors the semi-reclining posture for the patient, which is of great importance for drainage. He does not favor the use of carbolic acid in the abdominal cavity, because it prevents the natural absorption of poured-out fluids; at the same time it often interferes with healthy kidney action.

In answer to a question as to the cause of the severe mortality mentioned, he said that he thought it due to atmospheric influences passing over areas of country. His other operations in general surgery had been also unfavorable at that time.

At 3.40 P.M., the

DEATH OF DR. S. D. GROSS

was announced, and, in honor to the memory of the great surgeon, the Section took a recess.

Upon reconvening, DR. QUIMBY, of Jersey City, referred to the two extremes of treatment and precaution advised in this operation. He takes a middle ground. Believing want of cleanliness one of the greatest dangers, he does not consent to set these operations apart as the work of special persons. During an epidemic of smallpox, he had attended cases of confinement with the only precaution of changing the clothing, and attending his obstetric patients last. Cleanliness of hands and hair was also practised, and he failed to observe any disastrous results.

In reply to an inquiry of Dr. Sutton, he said that he had opened the abdominal cavity six or seven times, with a mortality of three.

DR. SUTTON, in conclusion, said that the statement of the low foreign mortality and its causes had not been refuted. His own first seven cases were fatal. After having observed the practice abroad for eighteen months, and having again had four failures in succession, he perceived his error and opened a private hospital. His seven ovariotomies therein performed have all been successful, and his highest temperature rise has been 101.5° F.

DR. J. TABER JOHNSON, of Washington, then read a paper on

THE EFFECTS OF TRACHELORRHAPHY.

He wished to draw attention to the immediate and the remote effects of the operation.

In some cases the operation is unwisely or unskilfully done, or oftener than is needed. Emmet now does one operation where formerly he would have done ten. This is because he first attempts the cure of endometritis or endocervicitis. In having the unfortunate result of a complete stenosis of the cervix, the fault is with the operator, not the operation. The frequency of laceration is not increased. When the operation is indicated and well performed it is one of the greatest operations of the age.

DR. GARCELON, of Maine, endorsed several of the author's points. The operation has no effect on pregnancy and conduces to fertility. There are two important reasons for performing the operation: 1. It reduces uterine hyperplasia; he operates in all cases of increased growth whether a laceration exists or not. 2. The scissors must be very sharp; one cut for each side suffices. 3. The parts must be absolutely approximated.

DR. WOODWARD, of Vermont, avoids pelvic cellulitis by digital examination; if on any part of the vaginal surface tenderness is produced, he does not draw the neck towards the vulva, as is usually done, but operates with it *in situ*.

THE CHAIRMAN, DR. REAMY, said that we ought to operate in all perceptible lacerations, and do so without awaiting the appearance of symptoms. Epithelioma is seen in its frequency and analogous causation on the lower lip of men. He was of the opinion that Emmet is forsaking his most brilliant operation.

WEDNESDAY, MAY 7TH—SECOND DAY.

The Association was called to order at 10 A.M., by the PRESIDENT, who announced, in affectionate terms,

THE DEATH OF DR. S. D. GROSS,

and appointed the following committee to consider and report what action should be taken by the Association thereon: Drs. T. G. Richardson, of Louisiana; L. A. Sayre, of New York; J. H. Packard, of Philadelphia; F. H. Hamilton, of New York; Moses Gunn, of Chicago; W. T. Briggs, of Nashville; and I. Minis Hays, of Philadelphia.

THE PRESIDENT then announced the following as the committee to consider the propriety of inviting to meet in the United States in 1887

THE INTERNATIONAL MEDICAL CONGRESS:

Dr. J. S. Billings, of U. S. A.; Dr. L. A. Sayre, of New York; Dr. R. H. Fitz, of Mass.; Dr. I. Minis Hays, of Philadelphia; and Dr. H. F. Campbell, of Georgia.

Also the following

COMMITTEE ON THE RECOMMENDATIONS CONTAINED IN THE PRESIDENT'S ADDRESS:

Drs. N. S. Davis, W. W. Dawson, W. T. Briggs, T. F.

Prewitt, D. W. Stormont, J. L. Cabell, and H. B. Ransom.

The following were then announced as having been appointed to constitute the

NOMINATING COMMITTEE:

Alabama, Jerome Cochran. *Arkansas*, P. O. Hooper. *California*, F. W. Hatch. *Colorado*, Jesse Hawes. *Connecticut*, G. L. Porter. *District of Columbia*, J. W. H. Longjoy. *Dakota*, H. Galloway. *Delaware*, W. Marshall. *Illinois*, E. P. Cook. *Indiana*, J. B. Haney. *Iowa*, H. C. Huntsman. *Kansas*, F. F. Dickman. *Kentucky*, W. H. Mather. *Louisiana*, T. G. Richardson. *Maine*, F. C. Hayes. *Massachusetts*, Charles H. Savory. *Maryland*, J. S. Lynch. *Mississippi*, B. A. Duncan. *Minnesota*, D. Leassure. *Missouri*, N. F. Essig. *North Carolina*, C. J. P. Hague. *New Hampshire*, S. P. Mercer. *Nebraska*, J. W. Parsons. *New Jersey*, Joseph Parrish. *New York*, J. W. S. Gouley. *Ohio*, W. M. Beach. *Pennsylvania*, J. B. Murdoch. *Rhode Island*, J. H. Eldridge. *South Carolina*, William Huger. *Tennessee*, J. H. Pope. *Vermont*, H. D. Holton. *Virginia*, Alexander Harris. *West Virginia*, George Beard. *Wisconsin*, William Fox. *U. S. Army*, J. R. Smith. *U. S. Navy*, N. S. Bates. *U. S. Marine Hospital*, Walter Wyman.

The report of the Committee on Resolutions to secure more competent

MEDICAL AND SANITARY SERVICE ON BOARD TRANSOCEANIC PASSENGER VESSELS

was read by A. N. BELL, M.D., Chairman. The report was briefly as follows: After conference, correspondence, and due deliberation, a bill was prepared and introduced by the Hon. Henry W. Slocum. The report referred to the contrast existing between the percentage of deaths on sea during the four years ending with 1873 and the four ending with 1883. During the former period there were 1,064,180 passengers carried, and 1333 deaths, or a percentage of .73 per cent. per thousand of the total number. For the corresponding period ending with 1883, the passengers numbered 1,127,215, the deaths reaching 1558, or .85 per cent. per thousand. This difference of .12 per cent. means that 225 lives would have been saved in the latter period had the sanitary conditions in that period been as good as in the former. In conclusion, he stated that the mortality is now three times as large as it should be, or would be, if the sanitary conditions of vessels were properly provided for.

DR. PRATT, of Michigan, moved that the report be accepted, and the committee be continued, to report one year from the present time.

DR. IRVIN spoke at great length upon the manner in which a similar bill is working in England, where he said that he was the first agitator of the movement.

The report was received and the suggestion adopted.

DR. PRATT then presented the following:

Resolved, That the American Medical Association, now in session, urges upon Congress the necessity of providing suitable legislation to secure the well-being of immigrants coming to this country, and to protect our own public health.

THE ADDRESS IN MEDICINE,

by the Chairman of the Section of Practical Medicine, DR. J. V. SHOEMAKER, of Philadelphia, was then read. The Address was referred to the Section on the Practice of Medicine.

Drs. Battsford and Stevens,

DELEGATES FROM THE CANADA MEDICAL ASSOCIATION,

were invited to seats on the platform.

DR. THADDEUS A. REAMY, of Cincinnati, the Chairman of the Section on Obstetrics, then delivered

THE ADDRESS IN OBSTETICS.

(See p. 530.)

EXPERIMENTAL MEDICINE.

The following resolutions were then presented by Dr. Henry H. Smith, of Pennsylvania, on behalf of Dr. H. C. Wood, of Philadelphia.

Whereas, It appears that an effort is being made to restrict, by legislative action, the practice of investigation in medical science by experiments on animals, and,

Whereas, In the opinion of this Association, such restriction is not needed for the guidance of medical men in their investigations, and would be an injury and a hindrance to the pursuit of knowledge and the improvement of the medical art, therefore,

Resolved, That a standing committee of seven be appointed by the President of the Association, to be known as the Committee on Experimental Medicine of the American Medical Association, charged with the duty of opposing, by all legitimate means, any interference with the progress of medical science by unwise or ill-considered legislation.

DR. KEYSER, of Philadelphia, explained the methods of procedure adopted by the antivivisectionists of his city, and the cards sent to physicians by them.

DR. DALTON, of New York, spoke of the movement in Philadelphia, and showed the absurdity of the position occupied by the antivivisection agitators.

The resolutions were then adopted by a unanimous vote.

THE CHAIR then announced, as the committee called for in the resolutions: Drs. Horatio C. Wood, William Pepper, James Tyson, of Philadelphia; Christopher Johnston, of Maryland; J. C. Dalton, and Austin Flint, Jr., of New York; and J. S. Billings, of U. S. Army.

MEDICAL ADVERTISING.

DR. ATWOOD offered a memorial with reference to the methods of advertising now pursued by our colleges. He said that if it is reprehensible for the physician to advertise, it is equally so for an association of physicians. He claimed that great harm is done by the advertising of free dispensaries, and he regretted deeply that so many men of *inferior* attainments, connected with colleges, succeed in practice above their superiors who are not so fortunate in position. Adopted.

ELEVATING THE STANDARD OF MEDICAL EDUCATION.

A resolution was offered recommending that the colleges all require a preliminary examination of applicants for admission, a course of three years, and a thorough final examination, including tests of skill in

various departments. After some discussion, a motion to lay the resolution on the table was made, but lost. Finally, the resolutions were adopted.

DR. PACKARD, of Philadelphia, moved that the Association take up for consideration, after the addresses for Thursday morning, the

AMENDMENTS TO THE CONSTITUTION

offered and laid on the table at the meeting of the Association at St. Paul, two years ago.

THURSDAY, MAY 8TH—THIRD DAY.

GENERAL SESSION.

The Association was called to order by the PRESIDENT at ten o'clock.

TIME OF ANNUAL MEETING.

DR. KELLER, of Arkansas, called attention to a mistake made by the Secretary. A few years ago when he introduced a resolution leaving the date of the annual meeting at the option of the Association, instead of restricting it to the months of May or June, this resolution had been laid on the table for a year or two, but at the last meeting it was unanimously passed. He had been informed that the Secretary had instructed the Nominating Committee that this resolution had not been adopted. He therefore moved that the Secretary be instructed to correct the mistake.

The Committee appointed at the last meeting to petition Congress to provide a suitable

FIRE-PROOF BUILDING FOR THE SAFE-KEEPING OF THE ARMY MEDICAL MUSEUM AND LIBRARY,

reported that they had presented to Congress resolutions setting forth the present inadequate protection provided for these valuable collections, and asking prompt action on the bill introduced, but no action as yet had been taken. An appropriation of ten thousand dollars per annum was also asked for the support of the library, and five thousand more for the publication of the catalogue. The report was adopted and the committee continued.

DR. GEORGE M. STERNBERG, U. S. A., moved that

"We earnestly petition Congress to make suitable appropriations for the prosecution of scientific researches relating to the

CAUSES AND PREVENTION OF INFECTIOUS DISEASES OF THE HUMAN RACE,

to be expended under the direction of the National Board of Health, and that a permanent detail of one medical officer of the Army and one of the Navy be authorized for the prosecution of researches of this nature.

"*Resolved*, That a committee of five be appointed to present copies of this resolution to the Speaker of the House, to the President of the Senate, and to the Chairmen of the Committee on Public Health of the House and of the Senate." Adopted.

Drs. G. M. Sternberg, I. Minis Hays, A. H. Gihon, J. E. Reeve, and John C. Dalton were appointed as the committee.

DR. KELLER asked attention to a resolution in regard to

CREMATION,

offered by him in Cleveland, and referred to a committee to which was also referred that part of the President's Address regarding the invitation to

THE INTERNATIONAL MEDICAL CONGRESS

to meet in 1887 in this country. The committee reported that they found the sentiment almost unanimous in favor of the invitation. It was therefore recommended that a committee of seven be appointed to present an invitation at Copenhagen, and, if accepted, with power to make all necessary arrangements, and the committee was authorized to draw upon the Treasurer for the preliminary expenses, not exceeding five hundred dollars. They also suggested Washington as the place of meeting.

DR. J. M. TONER presented the

REPORT OF THE BOARD OF TRUSTEES OF THE ASSOCIATION JOURNAL.

The contract for publication had been given to Newell & Co., of Chicago, and by a fortunate coincidence the editor chosen resided in the same city. The *Journal* had been commenced, and although like all new undertakings it had been somewhat trammelled by lack of funds, its good effect had been largely felt in stimulating members of the Association to pay their dues, and in largely increasing the income of the Association. He further believed that the present year would end with a surplus in the treasury. He then called upon Dr. N. S. Davis, the editor, to make his report.

DR. DAVIS reported that arrangements had been made for the publication of the *Journal* immediately after the last meeting, but that on account of unavoidable delays the *Journal* was late in appearing, and was a little late in its issue during the first three months. In accordance with the estimates made last year, 3500 copies were printed at each issue, but before the fourth issue the number was increased to 3800, and had been continued at that rate until the present time. The total weekly circulation is 3436, of which 2171 go to members. Of subscribers for the present year, 650 have paid, leaving 552 who have not paid. It is thus seen that the circulation has considerably exceeded the estimate made. Immediately after the meeting of the Association in Cleveland, circulars were sent to all the medical schools of the country, large drug manufacturing houses, and medical book publishers. In reply, a large number of advertisements was received, but many of them were of such character as to be precluded by the rule adopted by the Board of Trustees. Notwithstanding the restriction alluded to, quite a number of page advertisements were accepted. The income from this source for the first three-quarters of the year was about $1000; and at the end of the fourth quarter it should reach over $1200.

For the first nine months the total income was $10,345. This might be somewhat reduced by losses, etc. The total receipts from subscribers was $2293. On account of the fact that certain subscribers paid but four dollars each, the other dollar being paid to the person securing the subscription, there might be an apparent discrepancy in the figures between the number of subscribers and the amount received therefrom. If all advertisements be paid for, the total receipts would be $18,547.50; the total amount drawn from the Treasurer of the Association for publication purposes was $8171.26; that would make annual expenses $10,891.25, leaving a balance in the treasury of $1650.25

as result of the first year's publication. Deducting therefrom the necessary expenses of the Association, there will be over $500 still left in the treasury. As a result of the publication of the *Journal*, the number of members paying dues had been fully double that of any former year. On account of the need of a weekly journal west of the Alleghanies, a large proportion of the subscribers came from that section.

DR. J. M. TONER then resumed his report. In the opinion of the Trustees, the report of the editor showed the *Journal* to be in a satisfactory condition; it had been conducted with economy, ability, and judgment; the best interests of the Association had been kept in view, and its dignity maintained with rare discretion. It is believed that the experience gained during the past year, with the increased funds, will enable the editor to do better work in the future. If all the available funds were placed in the work of the *Journal*, the result would be seen in an even more satisfactory periodical. Early this year, Dr. Davis had presented his resignation, but after correspondence with the Trustees, he acceeded to their earnest request and withdrew it. Dr. Davis had informed them that while he would do the best he could for the *Journal* during the coming year, at the end of that period he would absolutely resign. Bids had been received for the publication of the *Journal* for the coming year from various firms, but the bid of the present publishers had been considered most suitable, and the publication had again been put in their hands.

DR. JOHN H. PACKARD stated, in presenting a minority report, that in no other way could he fulfil the duty resting upon him as one of the Trustees. He had no intention of reflecting on his colleagues, and was without hostility towards the present editor: he had no desire to hamper an enterprise in which for four years he had been warmly enlisted, and disclaimed any personal motive. From the majority report of the Trustees it would appear that the expenses of publication of the *Journal* had been met. He had, however, in the beginning of this year, received an official letter from the President of the Board in which he stated that the editor had not drawn his salary, and would abstain for some time from taking any; of this he expressed strong disapprobation. It was not only from a financial aspect that he dissented from the majority report. In his opinion the *Journal* has not approached anywhere near the standard to which the organ of the Association should attain. The defects of the *Journal* are not those consequent on a new enterprise, and are not decreasing.

The object of the *Journal* was not merely to journalize the transactions, not merely to spread out the minutes of the Association or papers read. The object is to make a strong, wide-awake, high-toned periodical, well equipped in every respect, to be a medium of communication between members all over the country. A thoroughly trained corps of editors is requisite; access must be had to large libraries, and where there is opportunity to secure auxiliary work such contributions should be liberally paid for. Facilities for mechanical execution are essential to real success. None of these requirements seem to have been possessed. Due respect for the interests of the Association compelled him to state this as his sincere and deliberate judgment. The report concluded by recommending that the resignation of Dr. Davis as editor be accepted, and that the publication office of the *Journal* be transferred to some eastern city, Washington, Philadelphia, or New York.

DR. HYATT then moved that the minority report be laid upon the table. The yeas and nays being called for, the roll was called, and the motion carried by 191 yeas to 74 nays.

A motion to adopt the majority report was then carried.

The Nominating Committee then presented the following list of

OFFICERS FOR THE ENSUING YEAR:

President.—H. F. CAMPBELL, M.D., of Georgia.

Vice-Presidents.—J. S. LYNCH, M.D., of Maryland; D. D. MERCER, M.D., of Nebraska; J. W. PARSONS, M.D., of New Hampshire; H. C. GHENT, M.D., of Texas.

Time and Place of Next Meeting.—New Orleans, on the last Tuesday in April, 1885.

Judicial Council, to fill vacancy, 1886, J. K. Bartlett, M.D., of Wisconsin.

To fill vacancies caused by expiration of term of service, J. H. Murphy, M.D., of Minnesota; J. M. Toner, M.D., of Washington; W. Brodie, M.D., of Michigan; H. D. Holton, M.D., of Vermont; A. B. Sloan, M.D., of Missouri; W. B. Ulrich, M.D., of Pennsylvania; W. M. Beach, M.D., of Ohio.

OFFICERS OF SECTIONS:

Practice of Medicine.—H. D. DIDAMA, M.D., of New York, *Chairman;* G. M. GARLAND, M.D., of Massachusetts, *Secretary.*

Obstetrics.—R. S. SUTTON, M.D., of Pennsylvania, *Chairman;* J. T. JELKS, M.D., of Arkansas, *Secretary.*

Surgery.—DUNCAN EVE, M.D., of Tennessee, *Chairman;* E. B. KING, of Pennsylvania, *Secretary.*

Ophthalmology.—JOSEPH A. WHITE, M.D., of Virginia, *Chairman;* EUGENE SMITH, M.D., of Michigan, *Secretary.*

Diseases of Children.—JOHN H. POPE, M.D., of Texas, *Chairman;* S. S. ADAMS, M.D., of District of Columbia, *Secretary.*

State Medicine.—E. W. SCHAEFFER, M.D., *Chairman;* J. M. MCCORMICK, M.D., of Kentucky, *Secretary.*

Oral and Dental Surgery.—A. W. HARLAN, M.D., of Illinois, *Chairman;* J. EWING MEARS, M.D., of Pennsylvania, *Secretary.*

Trustees of Journal.—H. F. CAMPBELL, M.D., of Georgia; J. H. PACKARD, M.D., of Pennsylvania; LEARTUS CONNOR, M.D., of Michigan.

Necrology.—J. M. TONER, M.D., of District of Columbia, *Chairman.*

The report of the standing Committee on Meteorological Conditions was presented by DR. N. S. DAVIS, Chairman.

THE AMERICAN SURGICAL ASSOCIATION.

Fifth Annual Session held at Washington, April 30, May 1, 2, and 3, 1884.

(Specially reported for THE MEDICAL NEWS.)

THURSDAY, MAY 1ST—SECOND DAY.

THE Association was called to order at eleven o'clock.

Reports of Committees being in order, DR. JOHN H. PACKARD presented the

TREASURER'S REPORT,

which showed a balance on hand of $1325.25.

THE END-RESULTS OF EXCISION.

DR. P. S. CONNER then offered the following:

Resolved, That a committee of three be appointed to obtain, so far as may be possible, reports relative to the end-results of excisions made for gunshot injury during the late war.

In the absence of DR. S. W. GROSS, of Philadelphia, his paper on

GASTROSTOMY, ŒSOPHAGOSTOMY, INTERNAL ŒSOPHAGOTOMY, COMBINED ŒSOPHAGOSTOMY, ŒSOPHAGECTOMY AND RETROGRADE DIVULSION IN THE TREATMENT OF STRICTURES OF THE ŒSOPHAGUS,

was read by Dr. J. Ewing Mears, and will be published in full in an early number of THE MEDICAL NEWS.

Dr. HENRY F. CAMPBELL, of Georgia, said that the paper was the best *résumé* upon the subject of operative measures in the treatment of œsophageal obstructions which we possessed. In his opinion, strictures of the œsophagus are, as a rule, not cicatricial, but tetanic from spasmodic contraction of the muscular fibres. Even in strictures produced by caustic alkalies, the cicatricial formation is exceedingly superficial, and the constriction depends mainly upon the muscular contraction excited by the irritation of the stricture. In order to dilate a contraction of this kind, the œsophagus must be taken by surprise. A large ball on the end of a whalebone only excites a more energetic contraction, but if a soft "rat-tail bougie" is passed down it acts somewhat as would a bolus of food. Almost immediately after the passage of a small bougie of this kind, fluids can be taken. Then after daily treatment in this manner for a week, a larger size of bougie may be used. A number of bougies of the pattern used by the speaker were exhibited.

In reference to the results of gastrostomy, he did not think the statistics very flattering, and he believed it better to allow the patient to die without undergoing this operation, since death is inevitable.

DR. JOSEPH W. THOMPSON, of Paducah, Ky., then read a paper on the

SURGERY OF THE HAND, ESPECIALLY AS APPLIED TO RAILROAD INJURIES.

He first spoke of the great importance of the hand, both in its function and as a means by which the intellect and genius of man is perfected. The progress which is being made in machinery carries with it increased perils to the hand, making it important that we should possess a thorough knowledge of the anatomy and surgery of that organ. Every resource of investigation should be brought to bear, in order to establish a conservative practice.

Attention was then called to the *inflammatory affections* of the hand, and the importance of prompt and free incision where swelling and effusion require it.

Wounds of the palmar arches are among the most difficult injuries we have to contend with. In this regard, the propriety of cautiously enlarging the wound so as to secure the injured vessels was discussed, and the importance of acute flexion of the forearm upon the arm was insisted upon. In *caries*, a free incision down to the bone will usually suffice; in necrosis, the detached portions of bone must be removed.

Resection of the metacarpal bones has proved a successful practice, especially when carried only to the extent of removing fragments of bone and smoothing sharp ends. Resection of phalanges, except of the distal row, is seldom admissible. In other cases, amputation is preferable. Excision of the carpal bones is of doubtful propriety, and can hardly be considered an established operation.

In amputation of the thumb, forefinger, and little finger, the stump should be made as long as possible, but a more useful hand is left by removing the middle and ring fingers at the metacarpo-phalangeal articulation. In this connection the essayist reported two cases of incised wounds, in which the hand was almost severed, and exhibited photographs illustrating the almost perfect repair attained in the functional movements.

In conclusion, antiseptic treatment of the hand was discussed. The author stated that in his experience, both as chief surgeon to the Chesapeake and Ohio and Southwestern Railroad, and in his private practice, he had found the properly applied antiseptic dressing act not only so as to prevent fermentation in the wound, but also as an anæsthetic, rendering the use of opiates usually unnecessary. It is his practice to use, for the first two dressings, about a two per cent. aqueous solution of carbolic acid, then to envelop the hand in absorbent cotton saturated with a ten per cent. solution of the acid in olive oil; a roller bandage being applied over this, and the dressing allowed to remain undisturbed from six to ten days.

In order to bring the subject of hand injuries more fully before the Association, the President called for the paper, by DR. JAMES MCCANN, of Pittsburg, entitled

CLINICAL OBSERVATIONS ON SEVERE RAILROAD INJURIES OF THE EXTREMITIES,

He referred to the variations in form and degree of the shock following injuries to different portions of the body. Attention was also called to the importance of not being deceived by the apparent cessation of the hemorrhage after a crushing injury, for the apparently slight oozing is often sufficient greatly to prolong shock or even cause death if uncontrolled.

Railroad injuries of the extremities were divided into two classes; the first comprising injuries involving skin, fascia, muscles, and bones, the nerves and larger blood-vessels escaping serious damage; the second including cases in which the nerves and vessels are all damaged, and the integrity of the limb destroyed. In injuries near joints the gravity of the case is greatly increased, also by its involving the joint, though never so slightly. Wounds of the elbow and wrist are, however, an exception to this rule, and even severe injuries to these joints may be well recovered from. Although there must be exceptions to all rules, it is generally best to use every effort to preserve a limb, regardless of the extent of the injury, if the arterial pulsation can be felt in the extremity, but if this is lost and the hemorrhage is arterial, it is better to amputate at once. Attention was called in this connection to the fact that a limb may be com-

minuted so as to necessitate amputation without any apparent injury to the integument having been sustained. In the management of these injuries the indications are first to arrest the hemorrhage. For this the tourniquet should *never* be applied. Various other methods were recommended. All wet or soiled clothing should be removed. The patient should be covered with warm blankets, the head placed low, and perhaps the foot of the bed elevated, and, if shock is severe, brandy or the aromatic spirit of ammonia administered. Transfusion may be necessary, The wound must be thoroughly cleansed and closed, or dressed open according to the requirements of the case.

The question of primary or secondary amputation, the author believed to be, as a rule, capable of the same decision as in military surgery, viz., the primary is preferred, but cases differ to a great extent in this regard. He was of the opinion that an attempt should be made in every case of comminution to save life by amputation, no matter how small the chance of recovery, unless it would positively lessen the chances. No such rule as that formulated by Erichsen can be relied upon—abandoning to death all adults suffering from a form of injury necessarily fatal without amputation. No rule can be laid down to govern the mode of amputation. It should, however, be early and rapid. All living tissue should be saved. Disarticulation at shoulder or hip is unjustifiable. In support of the value of immediate amputation, the author appended a table of the statistics of the Western Pennsylvania Hospital, from January 1, 1877, to December 31, 1883, including one hundred and twelve amputations for railroad injury.

A large number of cases were reported somewhat in detail, and appendices were added to the paper showing the nature of injuries most common, their treatment, and the results in different parts of the United States.

Before proceeding to the discussion of these two papers, the President called for remarks by Dr. Nancrede, as a close of the discussion of his paper on

SURGICAL INTERFERENCE IN CEREBRAL ABSCESS.

DR. NANCREDE stated that there were but two or three points to which he wished to call attention. One was that, in all the cases he reported, a normal, or even a subnormal, temperature invariably accompanied the formation of a cerebral abscess; and where the abscess was cranial, but not cerebral, or, in other words, was secondary to some other intracranial inflammation, as a circumscribed arachnitis, we have an elevation of temperature; but even in these cases, when the brain substance became involved, the temperature at once fell to the normal degree, or beyond it.

Then, again, he was not aware that the aspirator-needle had heretofore been pushed into the brain substance, where pus was not discovered, by mere section of the dura mater; and although in his case he did not succeed in withdrawing pus by the aspirator, it came up through the opening left after withdrawal of the needle, and relieved the immediately dangerous symptoms. In reference to the case reported by Dr. Campbell, in which respiration ceased immediately after, and apparently in consequence of, the evacuation of a large abscess, he said that there are so many ways of performing artificial respiration that he was reluctant to agree with the former speaker in regard to the cause of death.

In concluding his remarks, the speaker stated that he saw no reason why brain abscess could not be treated just as ordinary subcutaneous abscess with fair result. One such case, he said, had been reported by Dr. Brinton, of Philadelphia. Brain abscesses sometimes exist a long time without proving fatal. An important fact in this connection is that, although the result of operative interference is not as good as could be desired, yet there is no such thing as a recovery without surgical interference.

DR. JOHN H. BRINTON, of Philadelphia, stated that the case referred to by Dr. Nancrede was that of a young man who had his skull fractured by an accident while coasting. The bone was somewhat comminuted. He trephined and removed the fragments. The case did well for a few days; then symptoms of compression arose. He had the impression at the time that abscess was forming. The temperature was normal or slightly subnormal. In order to relieve the symptoms of compression, and, if possible, give vent to the pus, he laid open the dura mater, by a free crucial incision opposite the opening made by the trephine. He did not introduce a probe. This operation he made at two o'clock; at three or four, violent convulsions set in, and continued until eight. At the expiration of that time, a copious discharge of pus occurred from the wound. For some time, it gradually increased in quantity, and became thicker. After a few days, the symptoms subsided, and the boy made a complete recovery.

A discussion of the papers on

RAILROAD INJURIES OF THE HAND

was then called for.

DR. T. F. PREWITT, of St. Louis, agreed with the statement that in amputations of the hand, as much as possible should be saved. There seemed a little incongruity, however, between this statement and that made in regard to the middle and ring fingers. Sometimes it is very difficult to decide what course to pursue.

DR. L. MCLANE TIFFANY said that an amputation at the first phalangeal joint left, as a rule, a useless stump. But this might easily be avoided by simply stitching the divided tendon into the wound of the integument. Union occurred by granulation, and the union of the end of the tendon with the cicatrix gave fair movement of the finger.

DR. B. B. BONTECOU remarked that it made but little difference how much the fingers are mangled; they can be saved provided there is an artery and a vein left to carry on the circulation. He also spoke of the importance of making deep incisions, in order to relieve the embarrassment of the circulation where the return of venous blood was interfered with.

DR. D. MACLEAN, of Detroit, thought the expedient of stitching the tendon into the wound a good one in many cases, but he doubted whether a stump of this kind would be in reality of much more use than otherwise. He had never seen a patient with much motion of a stump, and the usual complaint is that they are painful or otherwise troublesome. He had several times reamputated stumps simply because they were too long. In regard to the ligation of the radial or ulnar artery, he said that such a procedure is almost never necessary, compression answering every purpose.

DR. P. S. CONNER made it a rule, he said, never to make a primary amputation of the hand, no matter what

the extent of the injury may be, and in so doing he believed much could be saved that would be otherwise lost. Where a distal phalanx can be saved by the removal of the bone, it should be saved. In the case of laboring men, more service can sometimes be rendered by amputating regardless of appearance at the metacarpo-phalangeal articulation, but if the patient is a head-worker, a more æsthetic operation is to remove the metacarpal bone also.

DR. NANCREDE spoke very favorably of the use of a solution of the bichloride of mercury as an application to lacerated wounds, especially on account of its antiseptic powers. He reported several cases in which its use had enabled him to save limbs that would have otherwise surely been lost.

DR. H. F. CAMPBELL strongly recommended the ligation of the main arterial trunk as a means of preventing inflammation and swelling.

DR. E. H. GREGORY, of St. Louis, agreed with Dr. Thompson that flexion of the limb was not sufficiently resorted to for the arrest of hemorrhage. He had been in the habit for years of relying largely upon it. To arrest hemorrhage, he said, it is not necessary strongly to flex the limb, but only enough to compress partially the vessel. The pulse at the wrist should not be made to disappear. His method is partially to flex the arm, then to bind it to the chest, as for a fracture of the clavicle, with adhesive strips and a roller bandage.

DR. JOHN H. PACKARD, of Philadelphia, related the case of a man who was twisted around a shaft in such a manner as to produce an injury very closely resembling a railroad injury. The arm was badly mangled and the skin torn from the shoulder so as to render the formation of flaps impossible. Thinking it not right to permit the man to die simply because he could not make an amputation *secundum artem*, he decided to amputate at the shoulder-joint. The flaps were made as if the integument were present. The skin was then drawn as closely as possible and the wound granulated, resulting in a good recovery. He did not believe that enough cicatricial tissue was present to give any great inconvenience, although there would probably be an occasional ulceration for some time to come.

DR. W. W. DAWSON called attention to the value of morphia hypodermatically administered to counteract shock, stating that he always relied upon it and thought it preferable to alcoholic stimulants. He also inquired whether Dr. McCann had made use of elastic compression to keep down inflammation and swelling.

DR. MCCANN stated that he had been accustomed to the hypodermatic use of morphia to relieve pain, but had not used it in large doses or directly with a view to prevent or relieve shock.

DR. JOHN H. BRINTON, of Philadelphia, then read a paper entitled

A REPORT OF TWO CASES OF INTRAUTERINE FRACTURE, WITH REMARKS ON THIS CONDITION, AND REFERENCES TO FIFTY-ONE CASES ALREADY REPORTED.

He stated his belief that the accident referred to was of more common occurrence than is generally understood. The first case reported was that of a strong, healthy, farmer's wife, aged twenty-five, who gave birth at term to a female child, being delivered with forceps. The right leg of the child was deformed. In the fifth month of her pregnancy the mother had fallen, striking on her right side. Two or three weeks later she had a more severe fall. After neither fall was there any hemorrhage, but she complained of great pain on the right side of her abdomen after the second fall. The right leg of the child was shorter than the other at birth. The deformity was greatly relieved by a subcutaneous division of the tibia and adjustment of the fragments.

The second case was that of a woman thirty-five years of age, who, when eight months gone, struck her abdomen forcibly against a tub-handle. She was delivered at full term of a child, with unmistakable evidence of an overlapping fracture of the clavicle.

He held that in all cases in which the deformity is great relief should be attempted by surgical means.

DR. MACLEAN inquired whether injuries to the mother, severe enough to produce intrauterine fracture of the limbs of the fœtus, were ever so severe as to produce abortion.

DR. GREGORY stated that there was in the St. Louis Medical College Museum, the skeleton of a fœtus in which *every* bone has been fractured, partial ossification of the fractures having occurred later.

DR. BRINTON stated that a number of such cases are on record, but that he had omitted them in his report, inasmuch as they were believed to be due simply to imperfect ossification.

DR. N. SENN, of Milwaukee, then read a paper entitled

EXPERIMENTAL RESEARCHES ON CICATRIZATION IN BLOODVESSELS AFTER LIGATURE.

The paper was divided into twenty-four parts or heads, as follows:

1. The history of ligature. 2. Histology of bloodvessels. 3. Intermediate ligature. 4. Immediate or direct ligature. 5. Scarpa's ligature. 6. Double ligature. 7. Momentary ligature. 8. Temporary ligature. 9. Permanent ligature. 10. Aseptic ligature. 11. Thrombosis after ligature. 12. Organization of thrombus. 13. Formation of cicatrix in bloodvessels after ligature. 14. Formation of cicatrix by adhesive or plastic inflammation. 15. Formation of cicatrix from fibrin. 16. Formation of cicatrix from white blood-corpuscles. 17. Formation of cicatrix from red blood-corpuscles. 18. Formation of cicatrix from immigration of corpuscles. 19. Formation of cicatrix from endothelia. 20. Formation of cicatrix from connective tissue. 21. Primary union in bloodvessels after ligature. 22. Experiments. 23. Remarks. 24. Practical suggestions. The experiments upon which the paper was based were made upon sheep, an animal considered by the author preferable to the dog or other animals generally made use of.

Under the head of practical suggestions the following conclusions were drawn:

1. All operations on bloodvessels should be done under antiseptic precautions.

2. Aseptic catgut ligature is the safest and most reliable agent in securing provisional and definitive closure of bloodvessels.

3. A thrombus after ligature is an accidental formation which never undergoes organization, and takes no active part in the obliteration of the vessel.

4. The intravascular or definitive cicatrix is the ex-

clusive product of connective tissue and endothelial proliferation.

5. Permanent obliteration in arteries takes place in from four to seven days; in veins in from three to four days.

6. In ligating vessels in aseptic wounds, the vessel-sheath can be opened freely without compromising the integrity of the vessel tunics, and such procedure renders the operation safer and easier of execution.

7. The double aseptic catgut ligature should be preferred to the single ligature in ligating large arteries in their continuity near a collateral branch, and should always be employed in all operations of tying varicose veins in their continuity, as the safest and most effective measure in producing definitive obliteration.

FRIDAY, MAY 2D—THIRD DAY.

DR. MACLEAN, of Michigan, said that if the conclusions of the preceding paper were correct, many of the views heretofore entertained must be altered. It has generally been considered unsafe and bad practice to ligate the common femoral, even for aneurism, because it was thought impossible to secure the formation of a clot. Now, if Dr. Senn's conclusions are correct, it is not necessary to have a clot formed, but union takes place directly between the walls of the vessel, without reference to the clot.

DR. H. F. CAMPBELL stated his preference for the silk ligature over the animal, saying that he would be afraid to trust the common femoral to a catgut ligature.

DR. H. E. GREGORY, of St. Louis, also expressed his preference for the silk ligature, and he had no doubt that the silk ligature will be absorbed if left long enough. He has seen the loop almost entirely removed by absorption.

DR. W. A. BYRD agreed in the main with Drs. Campbell and Gregory in regard to the security of the silk ligature, but he also used the animal ligature, being careful to get only the best imported article. In amputations, however, he trusted exclusively to torsion, and has not used ligature in an amputation for three years. Listerism had never impressed him deeply.

DR. BILLINGS, U. S. A., remarked that the distinction drawn between animal and silk ligatures was an improper one, inasmuch as silk is an animal product, and was in reality only a better form of animal ligature. It is difficult, however, to get a pure silk thread, because all thread is either dyed or bleached. He thought further that American surgeons ought not to be too severe in their criticisms of Listerism, in the face of the support it receives from surgeons abroad. Nowhere, perhaps, was there so good an opportunity for testing the efficacy of a system of this kind than in the hospitals of St. Petersburg, and there we find that whereas the amputation of even a finger was attended with great danger before its introduction, the very gravest of operations can now be performed with impunity under its use. It is abroad, in those countries which have crowded and filthy hospitals, that its power is best illustrated.

DR. B. A. WATSON said that he had been in the habit of using catgut ligature for the last ten years, and that he trusted it with the same confidence with which Dr. Gregory trusts the silk. He believed that suppuration is, in most cases, the cause of secondary hemorrhage, and not the failure of the ligature.

DR. NANCREDE called attention to the danger of applying too closely the results of experiments on animals to the human subject. For some unaccountable reason the dog was most commonly selected as the subject of experiment, whereas everybody knows that the results of wounds in the dog are vastly different from the results of the same operation on man. The abdomen of a dog if opened will close by first intention and without any great inflammation, while in the human subject the risk of inflammation is very great.

DR. SENN, in closing the discussion, expressed his belief that secondary hemorrhage was nearly always the result of inflammatory changes at the seat of the ligature.

DR. MOSES GUNN, of Chicago, read a paper on

THE PHILOSOPHY OF MANIPULATION IN THE REDUCTION OF HIP AND SHOULDER DISLOCATIONS,

in which he first reviewed the method proposed a third of a century ago by Dr. Reid, of Rochester, New York, and explained the mistake made by those who supposed that Dr. Reid's method was not new. It differed from former methods in being not merely a method of manipulation, but a definite plan of manipulation. Just what the method was, however, does not seem to be well understood. The manipulations are often practised somewhat vaguely, without a clear conception of the nature of the difficulties to be overcome; and it was to the consideration of these difficulties that the author now gave attention. He emphasized the statement of Dr. Reid that, even in operating upon the cadaver, with the muscles all loose, a part of the capsular ligament was torn away in reducing a dislocation of the hip, and stated that he had called attention to the fact that the resistance given by the untorn portion of the ligament was the great factor in the hindrance of a reduction of this dislocation. A number of cases were reported in this connection, and this rule given for the reduction: For the easy reduction of a dislocated hip or shoulder, the limb should be placed in, as nearly as possible, the same position as that which most frequently characterizes it at the instant of escape.

DR. DAWSON, in opening the discussion, said that it had always been a matter of wonder to him whether the capsular ligament was really torn or only stretched. In old cases, like one that Dr. Briggs had told him about a few minutes before, in which the hip was dislocated for eleven months, what was the condition of the ligament at the end of that time? Was it still torn? It seemed to him that much more frequently the capsule yielded and did not tear. He then reported the case of a little boy upon whom he had tried every method conceivable to reduce a dislocation of the hip, but failing, decided upon making a subcutaneous division of the capsular ligament, as suggested by Dr. Frank H. Hamilton. He introduced a rather small knife, cautiously and gently, but scarcely had it touched the ligament when it snapped. This necessitated an enlargement of the opening in order to remove the broken knife-blade. This done, he severed the ligament and reduced the dislocation without difficulty. He was, however, unable to retain the bone in place, and the child died a few days after, apparently from exhaustion.

DR. BRIGGS, of Nashville, reported more fully the case which had been referred to.

DR. P. S. CONNER, of Cincinnati, inquired whether the author of the paper had ever made a post-mortem examination of a hip-joint soon after the occurrence of a fracture? His reason for asking was that his attention had been called a few years ago, when reviewing the subject, to an article by Adams, who showed that it was only necessary to have the head of the bone slip out over any part of the capsular ligament to produce any form of dislocation with which we are acquainted. The bone is therefore most liable to slip out at the weakest point of the capsular ligament, and this point we find in the inferior anterior portion, where the bony rim is almost entirely wanting. He had satisfied himself by experimentation that after allowing the head to slip out at this point, it was possible to produce any of the various forms of dislocation. He could understand very well how a button-hole rent could let the head of the bone out in young children, but he could not comprehend such a condition in the adult.

DR. GUNN replied that he had never had the opportunity to see a post-mortem examination of a hip-joint soon after a dislocation had occurred, and he did not believe it possible to get the head of the bone out of the hip-joint by passing it over the capsule without tearing the ligament.

DR. PANCOAST stated that he had proved conclusively to his own mind that it is impossible to stretch the capsular ligament. The ligaments about the hip-joint are not only placed so as to hold the bones in position, but they are reinforced in such a way as to prevent the least possibility of stretching. They are composed almost entirely of white fibrous tissue with only a trace of yellow fibres, as if for the purpose of preventing the possibility of any yielding.

DR. GEORGE W. GAY, of Boston, read a paper on

TRACHEOTOMY IN CROUP,

in which he first referred to the difference of opinion that prevails in the minds of leading surgeons with reference to the advisability of the operation in membranous croup. All kinds of treatment have been followed by such bad results that many surgeons considered operative procedure unjustifiable. In the opinion of the author, however, every chance should be given the patient, and he believed that if the operation were more frequently performed the benefit would, in the long run, far outweigh the evil. He then endeavored to show from the records of the Boston City Hospital for the last twenty years, and from other sources, that the results of the operation were not so unsatisfactory as they have been supposed to be, and that many more can be relieved by timely resort to tracheotomy. The term croup he used in its genuine sense as meaning an acute laryngeal obstruction to respiration due to the presence of a false membrane, with two varieties, the membranous and the diphtheritic. Much of the doubt that is entertained in regard to the justifiability of tracheotomy is due to the confusion of these two forms. Prominence was given to the symptoms, glandular enlargement, nasal discharge, and albuminuria, as of value in the diagnosis of the diphtheritic form. He believed not only in an acute, non-contagious membranous form of croup and a similar contagious form, but also in a form often fatal in which no membrane was formed. After reviewing the literature of the subject in regard to the mortality with and without operative interference, the following reasons were given for its use:

1. The disease is always dangerous, and very often fatal.

2. The results obtained from medical treatment alone are extremely unsatisfactory.

3. Tracheotomy gives more relief, and saves more lives, than any other method known to the profession.

4. It seldom hastens death, and still more seldom causes it.

5. Finally, it affords the friends the great and lasting satisfaction of knowing that everything possible has been done for the patient.

DR. PANCOAST inquired in regard to Dr. Gay's method of cutting through the thyroid isthmus, and also whether he had ever excised a piece of the trachea, instead of inserting a tube, stating that he had pursued that method in a number of cases.

DR. TIFFANY spoke in favor of the use of anæsthetics in this operation, believing ether the best agent for the purpose. He had, in one or two cases, resorted to the excision of a piece of the trachea. He considered a definite diagnosis between the forms of croup out of the question.

DR. DAWSON stated that it had been his custom to operate almost entirely without hemorrhage. After incising the skin, he literally scratches his way down through the tissues with a blunt, grooved director, until the trachea is reached.

DR. L. A. SAYRE, of New York, complimented the author upon his recommendation to blow air into the trachea by means of a tube passed beyond the seat of obstruction instead of trying the dangerous expedient of sucking the membrane out. He also narrated a case which he had met many years ago in crossing the plains. A child was dying from croup. By covering the upright posts of the bed with a quilt, and passing steam under it, he was able to give the child a steam bath, and saved its life.

DR. FIFIELD, of Boston, believed there was another factor to be considered, inasmuch as the diphtheritic membrane, no matter how severe the symptoms may be during life, is not found entirely to fill the trachea after death. He recollected having seen his father open the external jugular vein in several cases of croup with excellent result. He further remembered having submitted to the same operation at his father's hand, when suffering from that disease in boyhood. The venesection, he said, was followed by a free expectoration of the membrane.

DR. TIFFANY stated that he had once opened a trachea which was completely occluded by the membrane, the child having expired a few minutes before.

DR. GAY closed the discussion with the statement that he had never excised a portion of the trachea, and did not favor the method. He used to scratch his way to the trachea, but had come to pay less regard to the hemorrhage, as he had never seen it severe.

On account of the absence of DR. JOHN S. COLEMAN, of Augusta, the Secretary read the conclusions drawn in his paper on

THE MULTIPLE WEDGE PRINCIPLE IN THE TREATMENT OF ORGANIC STRICTURES OF THE URETHRA.

The conclusions were as follows: 1. In the treatment

of organic strictures of the urethra, urethrotomy, whether internal or external, and also the method by divulsion, are attended by serious risk to the patient on account of hemorrhage, pyæmia, and uræmia. 2. Strictures treated by these methods are no less liable to recurrence than those treated by gradual dilatation; indeed, unless followed by persistent dilatation, they are subject to early relapse. 3. That gradual dilatation, although slower, is almost free from danger, permanent in its result, and on the whole the best method. 4. The multiple wedge principle devised by the author, viz., that of introducing side by side and one at a time successively a number of filiform bougies, whether applied to the interrupted or the continuous method, offers the easiest, safest, and best method for effecting the solution or absorption of the inodular tissue, and for removing the obstruction.

DR. SAYRE stated that the method described in the paper had been in use for a number of years in the hospitals of New York, but that he was not aware until now that it had been introduced by the author of the paper.

DR. PANCOAST stated his preference for urethrotomy, and exhibited a urethrotome which he highly recommended for the ease with which a stricture could be located and incised by its use.

DR. J. EWING MEARS, of Philadelphia, then read

A CONTRIBUTION TO OUR KNOWLEDGE OF THE PATHOLOGY OF TRIFACIAL NEURALGIA, WITH THE REPORT OF A CASE IN WHICH THREE INCHES OF THE INFERIOR DENTAL NERVE WERE EXCISED.

An examination of the literature relative to neuralgia of the fifth nerve, he said, has shown that in those cases in which resort has been had to the employment of surgical procedures as methods of treatment, no investigations, or, if any, very imperfect investigations, have been made to determine the character of the pathological changes which have been present, and upon which the morbid conditions have been founded. He therefore submitted the report of a case in which free neurectomy was performed and in which a careful study was made of the diseased structures removed.

The patient, a German, aged fifty years, had consulted him eight years and a half preceding the time of operation for an intense neuralgic pain involving the left inferior dental nerve. She soon passed out of his care. The methods of treatment prescribed by various physicians failed, and four years later she again consulted him. He now proposed neurectomy to the patient, but she declined and again sought other advice. At the expiration of four years more she again returned, and expressed readiness to submit to an operation. The disease had now assumed the epileptic form, the paroxysms occurring at intervals of a quarter and half a minute. The operation was done, and three inches of a somewhat swollen and reddened inferior dental nerve were removed. The patient was permanently relieved, and the wound healed promptly.

The author then gave the result of experiments showing the area of distribution of the nerve removed, indicated by complete anæsthesia, slight swelling, and a slight increase of surface temperature, and a photograph was exhibited having the anæsthetic area delineated in ink. The portion of nerve removed was hardened, and longitudinal sections of it made. Lithographic prints of these sections were also exhibited, showing the pathological changes consequent upon the disease. These consisted in some increase of connective-tissue sheaths investing the fasciculi as well as of the trabeculi dividing them, and a change in their regular arrangement. Here and there scattered through the connective tissue are minute yellowish-white dots, the significance of which has not been determined, but it is believed to be a fatty degeneration. The chief changes were in the nerve-tubes themselves, the axis-cylinder not being well made out. The medullary sheath was swollen. The changes were most marked near the inferior dental foramen.

With reference to the cause of trifacial neuralgia, and in explanation of its frequency in comparison to similar affections of other nerves, he believed it was best explained by reference to the exposed condition of the nerve. The lesion, he further believed, is, as a rule, peripheral—in its origin at least—although it cannot be questioned that central lesions sometimes do produce the affection. The question of the involvement of Meckel's ganglion the essayist did not consider of great importance, since he believed that the involvement of branches connecting with the four cervical ganglia by continuity of structure more likely to occur than any involvement of the ganglia themselves. In conclusion, the various methods of treatment, nerve-stretching, neurotomy, etc., were considered, the author expressing his belief that neurectomy was not only preferable, but imperative.

DR. CHEEVER stated that he had excised portions of the inferior dental and of the infraorbital nerves, but had not been favored with as good results as Dr. Mears. It was the rule in his cases that the pain returned. He had tried also several other operations. One operation he especially asked attention to was cutting of the condyle of the inferior maxillary bone, dissecting up the nerve to the foramen, then drawing it out and cutting it off. In one case he had wounded the middle meningeal artery just as it entered the foramen, but secured it with little difficulty. He did not attack the Gasserian ganglion, but scraped away all the nervous tissue he was able to find in the field of operation.

DR. PREWITT reported a case in which he removed an inch and a half of the inferior dental nerve, giving only temporary relief. He had not yet attempted another operation. The speaker also reported another case, a woman over fifty years of age, who had suffered a long time from severe neuralgia of the right infraorbital nerve. He removed the portion of the nerve found in the orbit, without cutting away any of the bone. She was only partly relieved. Pain returned and appeared in the nerve of the other side.

DR. MACLEAN reported the case of an old gentlemen who came to be operated upon, asking to have the nerve exsected. The operation was performed, and the relief has proved permanent for six years.

DR. PANCOAST stated that he had had a great deal of experience in cutting out nerves, with generally good success. He referred to an expedient which his father had used, viz.: drawing the nerve out as far as possible, so that when cut the stump would be drawn in beyond the point of compression in the bony canal.

DR. DAWSON reminded the Association of the cases

he reported during the discussion of a similar question last year in Cincinnati.

DR. HUTCHINSON reported a case in which he had tied the common carotid artery for a neuralgia which resisted all other procedures attempted, with the result of giving immunity from the disease for four years.

DR. MEARS, in closing the discussion, stated that his object in writing the paper was chiefly to get points that had been observed by the Fellows in reference to the etiology and pathology of the disease. He did not place much importance upon the operation done in the case reported, because he did not think it would answer in a great many cases. In order that the disease may be treated more scientifically further investigation of its pathology and etiology is needed, and it was to this end that the author had prepared his paper.

DR. WILLIAM A. BYRD, of Quincy, Illinois, then read a paper on

TREPHINING FOR INSANITY CONSEQUENT UPON A DEPRESSED FRACTURE OF THE SKULL.

After referring to the comparative frequency of the operation of trephining for epilepsy, the result of injury, the author spoke of the few cases in which the operation has been performed for the relief of insanity. He had found, in a careful review of the literature by at least fifteen different authors, the operation mentioned by but one—Gross. Prof. Briggs had performed the operation in three cases.

One case had been operated upon by the essayist, in 1883, for insanity gradually developed as a result of an injury received eighteen years before. The skull was found much thickened. A piece an inch and a half in diameter was removed. She made a good recovery from the operation, but her mental faculties improved for three weeks, then became progressively worse.

Thus, of the four reported cases, one died; one improved for a short time, then became progressively worse; and two recovered. This result, the author believes, indicates that the operation should be resorted to oftener, and very much earlier, than it has been heretofore. Dr. Briggs, since his arrival, reports another successful case.

SATURDAY, MAY 3D—FOURTH DAY.

DR. W. T. BRIGGS, of Nashville, read a paper on

THE TREATMENT OF EPILEPSY ARISING FROM INJURIES OF THE HEAD, WITH SPECIAL REFERENCE TO USE OF THE TREPHINE.

Reference was made in the introduction to the brilliant results arising from experiments on animals in the elucidation of the essential nature and pathology of epilepsy. Little was known of the disease until, in 1850, Marshall Hall enunciated his theory of the reflex action of the nervous system, and pointed to the medulla as the centre of this reflex system. Since that time various men have given attention to the subject; notably, Brown-Séquard, Schroeder Van der Kolk, Nothnagel, Myers, Kussmaul, Zenner, and Donders, and of them and their works the author gave a careful review. He next spoke of the time usually intervening between the receipt of injury and the development of epilepsy, and the significance of pain and tenderness over old injuries when associated with epilepsy. The following statements were emphasized: That epilepsy is, in the present state of our knowledge, essentially a functional disease; that two factors are necessary in the production of every case of epilepsy, and must *always* be present, viz., increased susceptibility of the reflex centres and a peripheral irritation; that the author had confined his remarks to those cases arising from injuries of the head which demand operative measures; that such injuries may involve the scalp only, or the cranial vault without fracture, but most frequently with fractures resulting in direct pressure or subsequent pressure, by osteophytes growing from the new bone between the fragments; that in case the point of irritation is situated in the scalp, and the attack is clearly referable to it, the excision of the scar, including the irritable fibrillæ of nerves, should be effected; that if the point of irritation is set up by osteo-sclerosis or hyperostoses of the cranial bones, the trephine should be used and the point of irritation removed; and that, if from depressed fracture of the cranial bones, or osteophytic growths from them, the trephine is demanded.

The statistics collected by Billings and Stephen Smith were given, showing 92 American cases in which trephining had been resorted to, of which 63 were cured, 13 ameliorated, 2 not changed, 14 died. From his own practice 30 cases were given, of which 25 were cured, 3 ameliorated, 1 not changed, 1 died, showing that the mortality is not greater than that of other operations of equal magnitude. He indulged the hope that the mortality may be still further reduced, and asserted that the use of the trephine in such cases is as legitimate as is lithotomy for the removal of stone. The treatment after the operation is important, for the increased irritability invariably established continues for a long time, ready to burst forth into active disease from other peripheral irritation.

As guides to the performance of the operation, the following points were given:

1. The operation should be done as early as possible.
2. It should be thorough and complete.
3. It should be carefully and cautiously done.
4. The wound should be dressed after the open method.
5. Careful after-treatment should be instituted to prevent destructive inflammation.

DR. L. A. SAYRE, in opening the discussion, reported a case to which he had applied the trephine, expecting to find an exostosis but, instead, ound a considerable excavation, the bone being much thinner over a circumscribed area than was normal. Through this excavated area he was also so fortunate as to find the line of the original fracture. The patient thus operated upon was permanently cured, so that he went through the war without any return of it, and is now a policeman in New York. In reference to the pathology of this case, the speaker said that he was at a loss to account for the good result that followed the operation, unless the removal of a button of bone had in some way relieved some embarrassment of the circulation.

DR. CAMPBELL remarked that he believed the bad results reported by many as following trephining for epilepsy were due to the fact that the button removed is too small. Instead of a piece an inch in diameter being taken out, a piece double that size, or larger, should be removed.

DR. MEARS called attention to an expedient to which he had resorted. A boy, aged thirteen years, was brought to St. Mary's Hospital, in Philadelphia, to be operated upon for epilepsy following the history of a fall. Fearing that there was a hysterical element in the case, he had the patient closely watched until the true epileptic character was pretty certainly decided. He raised a V-shaped piece of the scalp, then dissected out the somewhat thickened and inflamed tissues underlying, and closed the wound by suture. Prompt union occurred, and permanent cure resulted.

DR. ROBERTS inquired whether the author of either of the papers, or any other Fellow of the Association, had ever used the actual cautery for the relief of these cases of superficial irritation. He had used it once with good result, and recommeded it for the certainty with which it would destroy the abnormal irritability of the parts to which it was applied.

DR. BYRD endorsed the remarks of Dr. Campbell in regard to the propriety of removing a large button of bone, and stated that if he had the opportunity of repeating the operation on the case of insanity which he reported yesterday, he would remove a piece two and a half instead of one and a half inches in diameter. He also reported a case which had been twice operated upon with the trephine at an interval of two years, with only temporary relief. At the end of another two years he came to him requesting a third operation. A large portion of one parietal bone had already been removed, and he decided to try medicine. He gave him a mixture containing the bromide and iodide of potassium, with the result of preventing a return of the affection while he continued to take the remedy.

DR. GOULEY advised going a step further in the use of the trephine, recommending its use in cases of painful cicatrices as soon as there was any complaint of pain or of compression, without waiting for the epilepsy to be developed. In this way, he thought, many cases of epilepsy would be averted. He had made use of this plan a number of times with no bad effects. On the other hand, he had seen the operation made for epileptic seizures without any benefit. A case of this kind was reported.

DR. BRIGGS, in concluding, replied that he had never employed the thermo-cautery in operations of the kind referred to. Neither did he favor it as a method. If the irritation were in the scalp alone, he thought the knife could remove the irritable portion about as well as the hot iron, and if the point of irritation were not in the scalp, the hot iron would certainly fail to reach it.

DR. BASIL NORRIS, U. S. A., then read a paper entitled

EXTIRPATION OF THE ENTIRE TONGUE,

with a tabular statement of one hundred and twenty-six cases, giving the name of the operator, the date of operation, together with the results in each case, and various other remarks. In respect to authorities quoted, the paper was also exhaustive, referring to all the leading English, French, German, Italian, and American writers. An account of the various methods of performing the operation was given, and points of excellence emphasized wherever met. In regard to the advisability of the removal of the entire tongue, the author considers it not only justifiable, but highly commendable to the operator.

DR. MACLEAN said that it had been a long time before he would undertake this operation, but that he had performed it in a few cases, and in a great many more had removed a large part of the organ. He spoke further of the cancerous destruction of the tongue in children. He believed that in most cases these were in reality syphilitic, or a cancerous degeneration following a syphilitic disease of the tongue.

DR. MCGRAW expressed the belief that these syphilitic ulcerations are very liable to become cancerous. He also reported a case in which he had witnessed the transformation. A man had consulted him in the early part of summer. As there was a clear syphilitic history, he put him on the iodide of potassium. A few months later, he was compelled to split the tongue and remove a half of it. This, however, failed to check the disease, and it continued to grow in the submaxillary glands.

DR. CAMPBELL reported a case of hypertrophic glossitis in which he removed a larger part of the tongue with almost no hemorrhage.

DR. PREWITT reported a case in which he had removed the tongue with the infiltrated glands beneath it, splitting the jaw and accomplishing the removal chiefly with the scissors without much difficulty, but he very nearly lost his patient from suffocation by the thick, ropy mucus that accumulated in his throat. To relieve this he had probangs made, and taught his patient to remove the mucus with them. He also employed a flexible stomach-tube to feed his patient. At the expiration of about a week a secondary hemorrhage occurred from the lingual artery just behind a ligature he had placed on it.

DR. TIFFANY stated that he had noticed the uniformity with which the Fellows who reported cases of extirpation of the tongue spoke of the fear of hemorrhage. He had been accustomed, he said, to make operations about the mouth with the patient lying on his abdomen, his shoulders being supported by two assistants and his head by a towel in the hands of a third assistant who stood behind one of the others. In this position, with the head turned toward a side light, any operation could be made with impunity, so far as hemorrhage was concerned, since the blood was carried forward and out of the mouth.

DR. C. H. MASTIN, of Mobile, then read a paper on

PROSTATIC CALCULI, THEIR PROBABLE CAUSES, WITH NOTES OF REMARKABLE CASES.

Renal and vesical calculi, he said, have, from the earliest history of our profession, offered a fertile field for pathological research, and those minute concretions which form within the follicles of the prostate gland have proved especially interesting, since their true cause has, as yet, not been thoroughly understood. These concretions, almost microscopic at first, gradually increase, yet rarely acquire any considerable dimensions, seldom becoming larger than an ordinary pea. Still, they accumulate in considerable numbers, studding the follicles of the gland, or when increasing in size they break down its parenchyma and collect in distinct cysts. They increase in size, doubtless, from a deposition on their surface, and when not escaping from the follicles cause absorption of tissue by direct pressure, and thus come into contact, forming considerable numbers collected together in one or more distinct pouches. Usually

we find several calculi, each seated in a separate duct; these are generally quiescent and give no evidence of their presence; doubtless they frequently escape along the ducts of the prostate into the urethra and the bladder, and are washed out by the urine. Again, these numerous concretions increasing in size may collect together and light up inflammation, cause constitutional disturbance, terminate in abscess with ulceration, and be discharged either through the rectum or perineum. It is possible that, not being discharged, they may become the nucleus of vesical calculi. This, however, the author considered not probable, since it is rare to find vesical calculi having a phosphatic nucleus encrusted with lithates. The generally accepted opinion of the development of these stones by the formation of concentric layers while yet held in the oval vesicles of the prostate was then reviewed. Notice was taken of the fact that the chemical composition of these calculi varies in the various stages of their development, and is at all times widely different from either renal or vesical calculi. Sassaigue gives as the chemical analysis of these stones in one hundred parts, basic phosphate of lime 84.5, carbonate of lime 0.5, animal matter 15.0 parts. The various ways in which this analysis and other points in the history of the formation of the vesical and prostatic calculi contrasted were pointed out. The author then called attention to several cases, remarkable for the large number of stones removed or for other features connected with them. Dr. T. Herbert Barker, he said, had removed, in 1843, from a laborer twenty-six years of age, twenty-nine calculi, aggregating 1681 grains Troy. The mass of these stones, as they were removed adhering together, measured over four inches in length. A similar specimen, but with no history, is catalogued in the collection of Guy's Hospital. Several other cases were referred to, including some which were reported as prostatic, but which upon closer inspection were undoubtedly of renal or vesical origin, and had simply lodged in the prostatic portion of the urethra—termed by the author secondary prostatic calculi.

A case was next reported in which the author had removed, so far as he had been able to ascertain, the first single stone of truly prostatic origin, and the several steps of the operation given. The calculus was also presented to the Association. It resembled very much in size and shape, the normal adult prostate. Its weight was four hundred and thirty grains Troy. A chemical examination of fragments broken off during extraction, was made by Prof. T. G. Wormley, who pronounced them calcium phosphate. A section of the stone had not been made because the author had desired to present it intact.

DR. GOULEY did not believe the occurrence of prostatic calculi by any means so rare as it is generally considered. Nachet, who has had more experience than any other living writer, speaks of prostatic calculi as occurring in nearly every case of enlarged prostate; what we recognize as adenoid prostate and in the soft prostate. The same author says that while the soft prostate frequently contains calculi, the hard prostate is more apt to contain cysts. The speaker further referred to the large number of prostatic stones usually found. One could not cut into one of these soft prostates without experiencing a sensation as of cutting through sand. They are very gritty, but very small. They frequently do not seem to do any harm. Why this is, he did not venture to say. The prostatic secretion is physiological, and so long as it is undisturbed, no harm ensues. If the description of this distinguished French author was correct, the speaker thought we must consider the disease referred to as another affection, inasmuch as these stones destroyed the prostate. In similar cases which had come under his observation, he had considered the stones found in the prostate simply foreign bodies lodged there. They do not occur, at least in cases in which the prostate is enlarged. He believed that, as Dr. Mastin had said, a distinction should be made between stones formed in the follicles of the prostate and those lodging there. He further recognized the great difficulty of making this distinction, and suggested the probability that the stone presented by the essayist, from the fact of its size and its being single, was truly of vesical or renal origin, having received its external coating while lying in the cavity it had formed in the prostate, and that if a section of the stone were made, it would be found to contain a nucleus composed of urates.

Reference was then made to the difficulty frequently experienced, in cases of this kind, when attempting to feel the stone with the sound, and several cases were reported in which he had been able to get the "click" only after persistent and repeated efforts with the aid of anæsthesia. In one case a man had carried one of these stones for twelve years, knowing that something was wrong.

DR. CAMPBELL reported a patient from whom he had removed at one time two hundred and ten stones, at another time, ten years later, fifty-eight stones, which he believed were of prostatic origin. He stated further that, according to his experience, five-sixths of the stones cut out of the bladder have a uric acid nucleus.

DR. GUNN thought that one of the late speakers attempted to put a straight-jacket on the term "prostatic calculi." He said that since it is customary to call all stones taken from the bladder vesical calculi, he saw no reason for not calling all stones taken from the prostate prostatic calculi. A renal calculus lodging in the bladder and receiving concretions there became a vesical calculus; so, he thought, a vesical or renal calculus lodging in the prostatic urethra, and there forming an excavation, should be considered a prostatic calculus.

DR. MASTIN said that inasmuch as Dr. Gouley admitted that stones from the bladder are coated with deposits of the various urates, the ammonio-magnesic phosphates, or combinations of these, but not with pure phosphate of lime—as the chemical examination of this one showed it to be—he must still insist that was purely of prostatic origin.

TELEGRAM TO DR. GROSS.

The following telegram was ordered sent:

"PROF. S. D. GROSS, Philadelphia.

"The American Surgical Association are unwilling to depart until they are able to learn whether their hope for the improvement of your health has been realized."

The following, recommended by the Nominating Committee, were elected

OFFICERS FOR THE ENSUING YEAR:

President.—WILLIAM T. BRIGGS, M.D., of Nashville, Tenn.

Vice-Presidents.—J. C. HUTCHISON, M.D., of Brooklyn, N. Y.; E. H. GREGORY, M.D., of St. Louis, Mo.

Secretary.—J. R. WEIST, M.D., of Richmond, Ind.

Treasurer.—JOHN H. BRINTON, M.D., of Philadelphia.

Recorder.—J. EWING MEARS, M.D., of Philadelphia.

Council.—HENRY F. CAMPBELL, M.D., 1885; HUNTER MCGUIRE, M.D., 1886; P. S. CONNER, M.D., 1887; J. S. BILLINGS, M.D., 1888.

Drs. E. M. Moore and Lewis A. Sayre were appointed

DELEGATES TO THE INTERNATIONAL MEDICAL CONGRESS AND THE BRITISH MEDICAL ASSOCIATION.

Washington was chosen as the place of the next meeting, to be held the last Tuesday in April, 1885, and to continue four days. Dr. Billings was appointed Chairman of the Committee of Arrangements.

DR. T. F. PREWITT, of St. Louis, then read a paper entitled,

TWO CASES OF MALIGNANT DEGENERATION OF ULCERS OF THE LEG; ONE EPITHELIOMATOUS, THE OTHER SARCOMATOUS; WITH THEIR BEARING UPON THE QUESTION OF THE LOCAL ORIGIN OF MALIGNANT GROWTHS.

The first case was that of a hod-carrier, forty-seven years old, who had suffered for twenty years from an ulceration of the leg resulting from repeated injuries. His general health was excellent. At the end of this time the sore presented an irregular cell proliferation on its surface. The granulations were removed, but not examined microscopically. Nearly two years later, however—in February last—he again returned, with a characteristic epitheliomatous bunch of granulations springing from the old sore, and the neighboring glands enlarged. He refused to have an amputation performed, and the tumor was excised. But as soon as granulation commenced, there was evidence of the epitheliomatous growth. Microscopic examination confirmed the diagnosis. The tumor is still growing, the glands remaining in about the original condition. The second case was a woman, sixty-seven years of age, tall and angular, weighing one hundred and fifty pounds. She had received an injury to the right leg fifteen years ago. Ulceration occurred on the inner side of the leg. Ten years ago a similar ulcer formed on the outer side. Two years ago, when first seen by the author, the surface was covered with scant granulations, the margins calloused, and the tissues around somewhat congested. Varicose veins were present in the upper part of the leg. Last October, the patient noticed a bulging of the lower part of the ulcer. A portion of the growth was excised, and pronounced by Dr. F. A. Glasgow probably a sarcoma. The whole tumor being removed later, it was pronounced by the same gentleman a fibro-sarcoma. The author expressed his belief that, had these two individuals never suffered from the ulcerations noted in the paper, they would have never suffered from the malignant diseases to which they became subject later.

After reviewing the arguments for and against the constitutional origin of malignant growths, the essayist drew the following conclusions:

1. All malignant growths are primarily local in origin.

2. While admitting a constitutional tendency to their development in a limited sense, it is in the same sense and no other that it applies to the development of benign tumors, as chondromas, lipomas, papillomas.

3. Long protracted irritation from any cause may lead to vicious cell-action and development of malignant growths, independent of the existence of any diathesis.

4. The infectiousness of cancer is mainly due to histological characteristics favoring dissemination of germs, rather than to any inherent zymotic quality or spermatic influence, as suggested by Creighton.

5. The recurrence of malignant growths long after removal is due, not to a new outburst, as it were, of the original cancerous dyscrasia, but to the slow development of germs thrown off from the original tumor, and remaining in the system, either at the site of the operation or elsewhere.

6. To argue that heredity, recurrence after operation, or infectiousness, one or all, proves a constitutional origin, proves too much, since all these may be alleged of benign tumors.

7. Early removal of suspicious growths, indeed of all neoplasms, as so earnestly urged by our distinguished ex-President, at our last session, gives the best assurance of complete immunity, or postpones longer the return.

DR. D. MACLEAN briefly reported a case in which a malignant disease of the bladder was due, as he believed, solely to a prostatic irritation by calculi, continuing over several years.

DR. RICHARDSON asked what ground there was for considering the epitheliomatous and sarcomatous conditions in these cases secondary, and why the author did not think that they had existed from the first, since we so frequently see these malignant growths lie a long time dormant.

DR. PREWITT replied that he did not believe a malignant growth would lie so dormant for fifteen or twenty years, as in these cases.

DR. HENRY F. CAMPBELL, of Augusta, then gave an extemporaneous abstract of his paper on

ARTIFICIAL RESPIRATION IN THE SITTING POSTURE.

The speaker described how he discovered his method of artificial respiration. It was one morning, when he was acting as prosector, while drawing his subject from the barrel of alcohol, holding him by the arms, that he was horrified to hear the man, who had been dead six months, take a deep snoring inspiration. He released his grasp, and as the body sank into the barrel, he gave a hoarse expiration! The speaker drew the inference that what would bring breath into a man six months dead would surely do so in the living. He had tried it with the most gratifying results in a number of cases since.

DR. DONALD MACLEAN then gave some clinical notes on

COMPOUND GANGLIA OF THE TENDONS OF THE HAND AND FOOT.

After speaking of the frequency of the affection, especially in the hand, and the views generally held in regard to its pathology, the author related briefly his method of treatment by division of the annular ligament. Just how this caused a cure, he could not state, but he believed that it was by relieving the embarrassment of the circulation, with the removal of pressure, so that the peculiar formation constituting the ganglion was absorbed. In reply to Dr. Gunn, the author stated that

he made no attempt to evacuate the sac of the rice-bodies it contained.

DR. W. S. TREMAINE, U. S. A., reported a successful case of

SUPRAPUBIC LITHOTOMY.

After referring to the infrequency of the suprapubic operation for the removal of a vesical calculus, the essayist reported the following case: J. McH., æt. three and a half years, of good family record, but delicate in appearance and small for his age; had never walked. He had suffered intensely since eighteen months old from retention of urine. The water passed drop by drop, and the pain was great, prolapsus of the rectum occurring at times from the violent efforts at micturition. A number of physicians failed to recognize the difficulty, until Drs. McNiel and Davidson, of the Buffalo Medical and Surgical Dispensary, discovered a calculus. The stone could be felt with the sound at the vesical neck, but the instrument could not be introduced into the bladder any distance. With the finger in the rectum the stone gave the impression of being as large as a hen's egg, and it was immovable. It was evident that extraction through the ordinary perineal section would prove impossible, and therefore the high operation was decided upon. An incision two and a half inches long was made in the median line, down through the linea alba. The peritoneum was carefully pushed back, the bladder opened, and the stone with great difficulty removed. The condition of the bladder was bad. A rubber drainage-tube was introduced, and the upper part of the wound closed. Prompt union occurred. The temperature ranged for several days from 101° to 102°, but the child made an excellent recovery.

A photograph of the calculus was exhibited. The stone weighed nine drachms, was two and five-eighths inches in length, and one and one-quarter inch in its largest diameter, being, in the opinion of the essayist, the largest stone ever extracted from a child of that age, with recovery.

In conclusion, the speaker referred to the accidents of lateral lithotomy as enumerated by Gouley, and showed that the suprapubic operation not only eliminated these, but was on the whole much safer and more easy of execution. The statistics, he believes, misrepresent the operation when they show a mortality against it. "It is safer as regards after-consequences, and is *the* method, the natural, safe, direct route to the interior of the bladder when section is necessary, and the burden of proof is on the advocates of perineal section to show wherein there are any advantages by the circuitous, dangerous, dark route." . . .

DR. GOULEY did not favor the operation. He said that with the present instruments for crushing the stone it would be almost never necessary. It would be performed only by operators at a distance from large cities, when they came in contact with large stones that they were unable to remove through the perineal incision, and were not able to get crushing instruments.

DR. GUNN said that while the suprapubic operation will succeed well in skilled hands, like those of the essayist, it was not a sufficiently safe one to be undertaken by the general surgeon.

DR. JOHN B. ROBERTS uttered the prophecy that within ten years the suprapubic operation would be the one in common use. It was the one that would be chosen by the young men in the profession in preference to one that seemed so fraught with difficulties as does perineal section.

DR. DAWSON agreed with the last speaker as to the probability of this operation growing in favor, though he did not expect its adoption to be so rapid. He further stated that in the western States many of the calculi are so hard as to render crushing, or even the use of the drill, out of the question.

DR. BRIGGS reported a case in which he had removed a stone of enormous size from the bladder of a boy nine years old by this method. But as the boy was in a moribund condition, and he had operated only at the earnest entreaty of the parents, only temporary relief was given, the urine continuing suppressed.

DR. JOHN B. ROBERTS, of Philadelphia, then read, in abstract, a paper on

THE LOCALIZATION OF PERINEPHRIC LESIONS BY MEANS OF CLINICO-ANATOMICAL STUDY,

stated that his paper was suggestive, rather than demonstrative or conclusive, and that he hoped the Fellows of the Association would investigate all cases of perinephric disease, which they met, with a view to definite localization. The lesions liable to involve this region, primarily or secondarily, are inflammation, abscess, cancer of the kidney, cystic degeneration, renal calculi, hydronephrosis, etc. The early recognition of the exact seat of such lesions can only arise from study of anatomical relations and clinical histories. The importance of such localizing knowledge will not be gainsaid in these days of nephrotomy, nephrectomy, and kindred operations. As the study of cerebral localization has now advanced beyond the stage of speculative physiology and has become of practical value to the physician and surgeon, so will the study that leads to localization of perinephric lesions become of future value. The symptoms and signs which must guide us in fixing the exact site are those due to extension of inflammation to adjacent structures, and those caused by increase of bulk at the seat of disease. These may be termed the localizing symptoms as discriminated from the inherent symptoms of the lesion itself. Although there are no dividing lines separating the perinephric area into tracts, it is convenient to speak of upper, middle, and lower anterior, and upper, middle, and lower posterior tracts. The speaker then discussed the varying symptoms likely to be produced by lesions in these different tracts, and from the clinical histories of cases reported by himself and others, and from anatomical study, deduced the following conclusions:

A table of symptoms of probable and possible value in localizing perinephritis and perinephric lesions:

All anterior regions: Pain, tenderness, swelling, œdema, pointing, etc., in front and side of abdomen.

All posterior regions: Pain, tenderness, swelling, œdema, pointing, etc., in loin.

Upper tracts: Pleuritic friction, pleural effusion, empyema, expectoration of pus, dyspnœa, suprarenal involvement, solar plexus involvement. If on right side, bilateral œdema of legs, jaundice, fatty stools, persistent vomiting, rapid emaciation, ascites.

Middle tracts: Albuminuria and casts; suprapubic, scrotal, or vulvar pain or anæsthesia; suppression of

urine; uræmia; pus in the urine; œdema of scrotum or varicocele (especially on left side).

Lower tracts: Flexion of hip; pain or anæsthesia of front, inside, or outside of thigh; retraction of testicle; pain at knee; scrotal or vulvar pain or anæsthesia, without accompanying albuminuria; unilateral œdema of legs; abscess or sinus near Poupart's ligament; constipation (if left side); involvement of chyle receptacle (if right side).

The discussion of the paper was postponed from lack of time.

UNSETTLED QUESTIONS IN RELATION TO INJURIES OF THE HEAD

was the subject of a short paper by DR. DAVID PRINCE, of Jacksonville, Illinois. The question chiefly discussed was the propriety of making exploratory incisions in cases of injury of the head in which it is doubtful whether or not the bone is depressed or even broken. In the opinion of the essayist, such incision was not only justifiable, but the duty of the surgeon. In cases of depression, in which the injury can be at once recognized through the opening in the scalp received at the time of injury, it is advised by high authority to elevate the depressed bone at once. When the danger from a simple incision of the scalp is so slight as it is now, with our improved antiseptic measures, should the suspicion of a depressed bone go unverified? Is it not better to investigate, and, if an injury is found, relieve it at once? The chief argument, at least for the innocence of the operation, lies in the power of antiseptics to prevent the occurrence of putrefactive changes in the wound. The speaker expressed his preference for carbolic acid over the newer and, as he believed, less efficient antiseptic agents. He further insisted strongly upon the superiority of the wet dressing as compared with the dry, and expressed in strong terms his distrust of dry dressings of any kind when applied to the scalp. It is impossible, he said, to secure a germ-proof contact between a dry dressing and a surface on which hair is growing as rapidly as it does on the scalp, and pushing up the materials employed. But he believed that if putrefactive changes have once developed in the recesses on either side of the dura mater, they cannot be overtaken by any kind of antiseptics not destructive to the tissues of the patient. To prevent this putrefaction, the author applies the carbolic acid solution every twenty minutes.

The following papers were read by title, and ordered published in the volume of *Transactions*: *Anæsthesia and Plaster-of-Paris Bandage in the Treatment of Sciatic Neuralgia*, by Dr. John A. Comingor, of Indianapolis, and *Practical Views of Neoplasms*, by Dr. E. H. Gregory, of St. Louis.

A paper by Dr. Fenger, on *Cerebral Abscess*, read by title, was ordered published in the *Transactions*.

A COMMITTEE ON NECROLOGY

was appointed, consisting of Drs. J. Ewing Mears, P. S. Conner, and J. S. Billings.

The committee to investigate the

END-RESULTS OF EXCISIONS DURING THE WAR,

are Drs. Conner, Ashhurst, and Norris.

PRESIDENT MOORE expressed briefly his deep appreciation of the meeting just closing, in which he said he had taken the part more of a spectator than of a participator. The papers have been good, he said, the work has been good, and we should all be satisfied with it as a whole.

He called attention to the fact that in the present meeting the Constitution had been entirely laid aside, inasmuch as thirty papers had been read instead of only six, or two each day as therein provided for. He earnestly recommended that in the future this clause of the Constitution be carefully complied with, since it would lead to the presentation of more carefully prepared papers and a more scientific discussion of them. "We should stand upon a higher and higher plane," he said, "until this Association shall rest upon a more lofty basis than it has ever stood upon before."

A vote of thanks was tendered to the President. The President-elect, Dr. Briggs, was then conducted to the chair, and after he had expressed his gratitude to the Association for the distinction conferred upon him, the session was adjourned.

OBITUARY.

SAMUEL D. GROSS, M.D.

ALTHOUGH in a measure prepared for the sad tidings, the medical profession will learn with deep sorrow that Dr. Samuel D. Gross expired on Tuesday afternoon, May 6th, at his residence in this city, after an illness of four weeks. There had been evidences of failing strength during the preceding three months, which finally culminated in derangement of his digestive powers, and in death from exhaustion. The autopsy, which was made by Professor Da Costa, Dr. J. Ewing Mears, and Dr. Orville Horwitz, disclosed marked gastric catarrh, with irregular thickening of the mucous membrane, fatty heart, and a large cyst of the right kidney. The brain weighed forty-eight ounces; its convolutions were numerous and its sulci deep.

The death of this truly great, noble, pure, and unselfish man closes a life of usefulness that was without a rival in the medical profession of this country, a profession that he honored as much as he loved. His loss will be deeply felt both at home and abroad by a large circle of professional and personal friends, and especially by the younger men, to whom he was always glad to render assistance and advice.

Dr. Gross was born near Easton, Northampton County, Pa., on July 8, 1805, and was, therefore, in the seventy-ninth year of his age. He received his early literary and classical education at the Academy at Wilkesbarre, and subsequently at the High School in Lawrenceville, N. J.; studied medicine under the preceptorship of Dr. J. K. Swift, of Easton, and afterwards became an office pupil of the late Professor George McClellan, graduating from the Jefferson Medical College in 1828. Immediately upon receiving the degree of Doctor of Medicine, he settled in Philadelphia, and employed his leisure hours, which are common to the life of every young physician, in close study and in translating from the French and German languages *Boyle and Hollard's General Anatomy*, *Hatin's Manual of Obstetrics*, *Hildebrand on Typhus Fever*, and *Tavernier's Operative Surgery*. But the master-mind which was destined to guide medical thought wherever the science is recognized, was not content to perform the almost mechanical work of translating, and in 1830, two

years after his graduation, he brought out his *Treatise on the Anatomy, Physiology, and Diseases and Injuries of the Bones and Joints*, in which, for the first time, attention was called to the use of adhesive plaster as a means of extension in the treatment of fractures of the lower extremity. In the same year he returned to Easton, where he remained until 1833, when he was made Demonstrator of Anatomy in the Medical College of Ohio. After holding this position for two years, he accepted the Chair of Pathological Anatomy in the Cincinnati Medical College, then newly organized, and delivered the first systematic course of lectures on Morbid Anatomy ever given in the United States. In 1832, before going to the West, Dr. Gross performed a series of experiments on hanging and manual strangulation, the results of which were published in the *Western Journal of Medicine*, and afterward incorporated by Dr. T. Romeyne Beck in his great work on *Medical Jurisprudence*. He also made numerous observations on the temperature of the blood and on the coagulation of that fluid as influenced by various circumstances.

During his residence in Cincinnati, his occupancy of the Chair of Pathological Anatomy enabled him to devote much of his attention to this subject, and in 1839, he brought out his *Elements of Pathological Anatomy*, which passed through two subsequent editions in 1845 and 1857. This was the first systematic treatise on this subject in the English language. After teaching in Cincinnati for four years, he was called to the Chair of Surgery in the University of Louisville, where he remained until 1850, when he was elected to the same Chair in the University of New York. While in Cincinnati and Louisville his pen was not idle. His *Experimental and Critical Inquiry into the Nature and Treatment of Wounds of the Intestines*, appeared in 1843, *Treatise on the Urinary Organs*, in 1851, a third edition being demanded, in 1876, and a *Treatise on Foreign Bodies in the Air-passages*, in 1854.

After remaining in New York for one year he returned to the University of Louisville, at the earnest solicitations of his former colleagues in that school. But a greater place was being prepared for him. In 1856 he was elected to the Chair of Surgery in the Jefferson Medical College, from which the distinguished Mütter had just resigned. This position, offered by his Alma Mater, was accepted, and the remainder of his long and useful life was spent in Philadelphia.

One year, in 1857, after coming to the Jefferson College, the great literary work of his life, his *System of Surgery*, appeared, the sixth edition of which was issued in 1882. His reputation as a teacher and surgeon was already established, and if anything were necessary to increase his national and foreign reputation, his *System of Surgery* at once and completely established it. Being at present the text-book in fully one-half of the medical colleges in America, and the acknowledged standard for surgeons throughout the country, it is scarcely necessary to more than mention it to the American profession. But the appreciation of this encyclopædic work is not confined to this country, as in 1863 it was translated into the Dutch, and, if we do not mistake, into the Russian language.

He was one of the five authors of *A Century of American Medicine*, published in 1876, the chapter on surgery being from his pen. He was one of the founders and editor-in chief of the *North American Medico-Chirurgical Review*, the publication of which was stopped by the War of the Rebellion, after an existence of five years. He was President of the American Medical Association in 1868, and of the Centennial International Medical Congress in 1876; was founder and first President of the Pathological Society of Philadelphia, of the Philadelphia Academy of Surgery, and of the American Surgical Association. He was a Professor of Surgery for forty-two years, during which period he dwelt with great emphasis on the guiding principles of that branch of medicine, and was the first to suggest or perform the operation of wiring the dislocated clavicle to the sternum or acromion process, the suturing of divided nerves and tendons, amputation high up in senile gangrene, a modification of Pirogoff's amputation, an operation for neuralgia of the jaw in old persons, deep stitches in wounds of the abdomen, and a direct operation for hernia by suturing the pillars of the ring. He was also the first to describe prostatorrhœa, and was the inventor of numerous instruments.

No American physician ever had so many or so great honors from celebrated institutions of learning as Dr. Gross. In 1872, Oxford conferred upon him the degree of D.C.L.; in 1861, the Jefferson College, of Cannonsburgh, the degree of LL.D.; Cambridge her LL.D., in 1880, and the University of Edinburgh and the University of Pennsylvania conferred the same degree in April and May, 1884. He was a Member or Fellow of a large number of medical societies and organizations both American and foreign, including the American Philosophical Society, the Imperial Medical Society of Vienna, the British Medical Association, the Royal Medico-Chirurgical Society of London, the Clinical Society of London, and the Pathological Society of London.

In addition to the works already mentioned, Dr. Gross was well known as a voluminous, clear, and entertaining writer for the medical press. His addresses, introductory and valedictory and his biographical memoirs of various medical men are numerous, including, among the last, those of Ambrose Paré, Ephraim McDowell, Daniel Drake, John Syng Dorsey, J. Cobb, Charles Short, Valentine Mott, and Robley Dunglison. While in Louisville he prepared an exhaustive report on Kentucky surgery, which was published in the *Transactions* of the Medical Society of that State, and in which he first established the fact that Dr. Ephraim McDowell was justly entitled to the honor of being the father of ovariotomy.

In 1882, after having taught surgery for forty-two years, he relinquished his laborious duties as an active teacher, and to the regret of his colleagues, the trustees of the institution, and the whole profession, he resigned his Chair in the Jefferson Medical College. As a teacher, a lecturer, and an operator, Dr. Gross was greatly respected and admired by his classes. He was an untiring student, systematic and economical of his time, and while punctually fulfilling his engagements as professor and practitioner, he was enabled to keep himself thoroughly informed in medical and general literature. His extensive knowledge of disease, added to a ready facility in diagnosis, enabled him to grasp at a glance the salient features of a case. He was never satisfied unless his work was thoroughly

done, and felt that in every case he had a triple duty to perform: first, and above all, to his patient; secondly, to his pupils; and, lastly, to himself. No surgeon was ever more alive to the responsibilities of his office, or more determined to perform them with an eye single to the best interests of all concerned. He was always a warm advocate of a higher grade of education, and a more thorough course of instruction for the student of medicine. Whether as surgeon, author, or lecturer, the stamp of his individuality has been indelibly impressed upon the history of science in America. He was never content simply to keep pace with the stride of scientific research, but has often been the pioneer to open up unexplored regions. With him, science and humanity have gone hand in hand, and, as a result, the technical and general literature of the century has been enriched by his works, and humanity made happier by the greatness of his heart.

Among his last contributions to his profession may be mentioned his paper on *The Value of Early Operations in Morbid Growths*, read before the American Surgical Association, in 1883; *Remarks on the Importance of Trained Nurses*, which appeared in THE MEDICAL NEWS of September 15, 1883; a paper on *Wounds of the Intestines*, read before the American Surgical Association by his former pupil, Prof. Richardson, of New Orleans, April 30th; and one on *Lacerations of the Female Sexual Organs*, read, on May 8th, by Dr. Busey, before the American Medical Association. These last papers bear the stamp of that patient and untiring "research in the past, which lend to the learning of the present its highest value." Truly it may be said of him that he died in harness; and though the threescore years and ten had almost gone on to fourscore, his mind still retained the vigor with which it had worked for over half a century.

NEWS ITEMS.

EDINBURGH.

(*From our Travelling Correspondent.*)

THE TERCENTENARY FESTIVAL OF THE UNIVERSITY OF EDINBURGH, which closed last night with a general illumination of the city, has been admirably managed throughout, and has made this place temporarily the centre of interest for the scientific and literary world. As remarked by Sir Alexander Grant, we could almost say now of the University of Edinburgh what was said of Portia:

> "Nor is the wide world ignorant of her worth,
> For the four winds blow in from every coast,
> Renowned suitors."

But while in the crowd of distinguished guests, delegates from other universities and from learned societies, and recipients of the honorary degrees conferred, all faculties were represented, and divinity, law, literature, science, poetry, and art each received due honor, it is no disparagement to all these to say that medicine was preëminent over all of them in the number and character of its representatives; and it is fitting and proper that this should be the case. During the last half of the last century, the medical school of the University of Edinburgh was the leading medical school of the world, and drew students from all civilized countries. To a considerable extent, this is still the case, and, with its fifteen hundred medical students, it is, if not the largest, as claimed by Prof. Fraser, certainly one of the three largest medical schools in existence.

At the luncheon given by the Medical Faculty in its new buildings, the scene, and the names of the speakers, reminded one vividly of the London International Congress of 1881, and the same may be said of the impressive graduation ceremony and of the banquet.

The new buildings of the Medical Department of the University attracted much attention on the part of visitors, and are well worthy of careful examination by all who are interested in medical education, since they may be taken as embodying in concrete form the latest views of experts in this matter. They are built of the gray stone of which all important buildings in the city are constructed, and are arranged around a large quadrangle, the entrance to which is through a fine arch which is a prominent feature of the principal front.

In these buildings the nine departments of anatomy, surgery, practice of physic, physiology, pathology, midwifery, chemistry, materia medica, and medical jurisprudence, are accommodated, each having its own amphitheatre or lecture-room, and its own laboratory or practical rooms. Special facilities are provided in each department for experimental work and original investigations by the professor and his assistants, the laboratories are well fitted up, and the whole structure is thoroughly fireproof. The new infirmary close by gives the means of clinical instruction, and when the size of the classes is considered—including about 1500 medical students—it is difficult to suggest improvement in the plans for their accomodation. It should be remembered in this connection, however, that a large number of these students receive a very considerable part of their instruction not in the University, but in the extra-mural school, which is an extremely important appendage to it.

The greatest and most imposing gathering of the Tercentenary was that for the reception of delegates and the conferring of honorary degrees, which took place in the great Synod Hall on Thursday, April 17th. Probably there has never before been gathered under one roof such a truly cosmopolitan assemblage of acknowledged leaders in philosophy, literature, science, and art. Every European State, except Spain, Turkey, and Greece, was represented, and delegates from both North and South America, from India, Japan, Australia, and the Cape of Good Hope were also present. The delegates from European universities and learned societies presented a quaint and attractive sight in their robes and caps, many of which were of colors and fashions adopted centuries ago. Among these were especially conspicuous the flowing green robe and high black velvet collar, worn by Professor Pettenkofer, the bright crimson of Professor Ollier, of Lyons, and the gorgeous yellow silk robe of Professor Mézières, of Paris. After the presentation of the delegates to the Chancellor, the latter proceeded to confer the honorary degrees awarded by the University, including sixteen D.D.'s and one hundred and twenty-two LL.D.'s. Among the recipients of the latter were the following medical men, viz.: George W. Balfour, President of the Royal College of Physicians, Edinburgh; Fordyce Barker, of New York; John S. Billings,

U. S. Army; Sir William Bowman; John S. Bristowe; Sir Andrew Clark; Surgeon-General Thomas Crawford; Professor John E. Erichsen; Professor S. D. Gross; Sir William Gull; Professor H. von Helmholtz; Dr. J. Henle; Dr. Joseph Hyrtl; Dr. Haldane; Sir William Jenner; Thomas Keith; John Marshall, President of the Royal College of Surgeons, London; Dr. H. Maudsley; Dr. H. Gueneau de Mussy; Professor Ollier; Sir James Paget; Professor von Pettenkofer; Dr. Priestly; Sir J. W. Reid, Director-General Medical Department, Royal Navy; Professor Saxtorph, of Copenhagen; Professor Schmiedeberg, of Strassburg; Dr. E. H. Sieveking; Dr. John Smith; Professor B. J. Stokvis, of Amsterdam; Professor Virchow; Dr. P. H. Watson, and Dr. Samuel Wilks.

Among the non-medical men who received the honorary degree of Doctor of Laws, the most conspicuous were: Lieutenant-General Alison, Prof. Cayley, Sir Samuel Ferguson, Mr. Flower, Prof. Franckland, Mr. Froude, Mr. A. Geikie, Prof. Haeckel, Prof. Jowett, Prof. de Laveleye, Sir Frederic Leighton, Baron de Lesseps, Hon. James Russell Lowell, Sir John Lubbock, Sir Henry J. S. Maine, Prof. Mézières, Prof. Pasteur, Count Saffi, Prof. Seely, Prof. Sidgwick, Sir James Stephen, Robert Browning, and Alfred Tennyson.

But if the sight of all these distinguished men was interesting and impressive, scarcely less so was the view which they had on the last day of the festival of some two thousand students gathered in the body of the same great hall, and welcoming with voices, sticks, and waving of hats their favorites among the guests, or the glimpse of the same students obtained by those who saw their torchlight procession, and to many of whom, no doubt, it gave rise to the thought put into words by Mr. Lowell—that it was a coming from the darkness to go into the darkness, yet keeping up the flame.

The great peculiarity of the Edinburgh University is that it was founded and has been maintained by the people, and not by church or king. It has, in Mr. Lowell's words, "gone near to the life of the nation," and it has been a part of the life of the city; it has been "our tounis collidge." And the crowning fame of the University has been, and now is, its medical school, with which the names of Monro, Cullen, Gregory, Bell, Alison, Syme, Christison, Simpson, Lister, Turner, and a long list of others well known in medical literature are indissolubly connected.

American physicians will heartily join in the sentiments expressed by Sir James Paget in proposing a toast to "Prosperity to the Medical School of the University of Edinburgh." He referred to the fact that its career has illustrated the value of rivalry, and that in the work of life an honest and earnest rival is often better than a cautious friend, and wished for it more pupils, more wealth, more museums filled with the treasures of science, a more abundant power of spreading knowledge, and more power in turning knowledge to the utility of men in the remedy of disease. This is the Alma Mater of American medical schools, which have in the main adopted its organization of chairs and methods of management, and which should bid it God-speed in the work which yet remains before it.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.—At a meeting of the College of Physicians, held on Wednesday evening, May 7, Dr. J. M. DaCosta was elected President, vice Dr. Samuel Lewis, resigned.

UNIVERSITY OF PENNSYLVANIA.—At the annual commencement of the University, held on May 1st, the degree of M.D. was conferred on one hundred and one candidates; and Dr. T. G. Wormley delivered the Valedictory Address. On behalf of the Graduating Class, a full-length portrait of Prof. Alfred Stillé was presented to the University.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending April 26, 1884, indicate that remittent fever has considerably increased, that diarrhœa, dysentery, measles, and whooping-cough have increased, and that pneumonia, scarlet fever, cerebro-spinal meningitis, and inflammation of the kidney have decreased in area of prevalence.

Including reports by regular observers and others, diphtheria was reported present during the week ending April 26, and since, at four places, scarlet fever at twelve places, and measles at eight places.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 29 TO MAY 5, 1884.

HEGER, ANTHONY, *Major and Surgeon.*—From Department of Texas to Department of the East.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

HAPPORSETT, J. C. G., *Major and Surgeon.*—From Department of Texas to Department of the East.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

BENTLEY, EDWIN, *Major and Surgeon.*—From Department of the East to Department of Texas.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

MIDDLETON, PASSMORE, *Captain and Assistant Surgeon.*—From Department of Texas to Department of Missouri.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

KOERPER, E. A., *Captain and Assistant Surgeon.*—From Department of the East to Department of Dakota.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

DICKSON, J. M., *Captain and Assistant Surgeon.*—From Department of the East to Department of California.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

GIRARD, A. C., *Captain and Assistant Surgeon.*—From Department of Dakota to Department of Missouri.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

GIRARD, J. B., *Captain and Assistant Surgeon.*—From Department of Arizona to Department of the East.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

HALL, J. D., *Captain and Assistant Surgeon.*—From Department of Dakota to Department of the Columbia.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

HALL, WM. R., *Captain and Assistant Surgeon.*—From Department of Missouri to Department of Texas.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

CUNINGHAM, T. A., *Captain and Assistant Surgeon.*—From Department of the East to Department of Missouri.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

MCCREERY, GEORGE, *First Lieutenant and Assistant Surgeon.*—From Department of Arizona to Department of Dakota.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

COCHRAN, J. J., *First Lieutenant and Assistant Surgeon.*—From Department of Missouri to Department of Arizona.—*Par. 2, S. O. 101, A. G. O.*, May 1, 1884.

SCHUFELDT, ROBERT W., *Captain and Assistant Surgeon.*—Relieved from temporary duty in Surgeon-General's Office, and ordered to report to Lieutenant-Colonel Basil Norris, Surgeon, U. S. A., Attending Surgeon, Washington, D. C., for temporary duty in his office.—*Par. 6, S. O. 100, A. G. O.*, April 30, 1884.

PHILLIPS, JOHN L., *First Lieutenant and Assistant Surgeon* (Fort Warren, Mass.).—Ordered to report for temporary duty to the Commanding Officer at Fort Preble, Me.—*Par. 1, S. O. 51, Headquarters of Department of the East*, April 25, 1884.

DIED.

JOHN M. CUYLER, *Colonel and Surgeon* (retired).—Died at Morristown, N. J., April 26, 1884.